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SEEDS

Vegetable, Flower *and* Field

AGRICULTURAL IMPLEMENTS

Farm, Poultry, Dairy *and* Bee Supplies

The **I.W. SCOTT COMPANY**

500 LIBERTY AVE.—113 DIAMOND ST.

PITTSBURGH, PA.

Roses, Trees, Shrubs, Plants and Bulbs

1876—1934

*Everything for Farm, Garden
Poultry and Bees*



General Information and Suggestions

SPECIAL DISCOUNT LIST

5% Discount

will be allowed on orders amounting to \$10 and upward, selected from the following list, when cash is remitted with order.

Vegetable and Flower Seeds
Bulbs and Nursery Stock

Insecticides	Dusters
Plows	Pruning Tools
Harrows	Ladders
Land-Rollers	Hand Mowers
Lawn-Rollers	Grindstones
Pulverizers	Feed-Cutters
Manure-Spreaders	Root-Cutters
Lime-Sowers	Grinding-Mills
Grain-Drills	Grain-Cleaners
Potato Planters and Diggers	Corn-Shellers
Seed-Sowers	Cider-Mills
Corn-Planters	Gasoline Engines
Weeders	Pumps
Cultivators	Washing-Machines
Planet Jr. Goods	Wagons
Garden Tools	Churns
Sprayers	Cream-Separators

Ask for prices on lines not quoted in Catalogue.

Special quotations will be given on large quantities of Seeds, Fertilizers, Implements, and other goods, on receipt of specifications.

Many of our lines are handled by reliable dealers and can be purchased through them.

Non-Warranty. We give no warranty, expressed or implied, as to description, quality, productiveness, or any other matter of any seeds, bulbs, or plants we sell, and will not be responsible for the crop. No responsible seedsman gives any warranty. If the purchaser does not accept the seeds on these terms they are to be returned at once.

A SUMMARY OF OUR DEPARTMENTS

VEGETABLE SEEDS. Not chasing after loudly heralded novelties, but always endeavoring to add every new sort of real value, we submit an up-to-date list of Vegetable Seeds, offered with the confident assurance that each item in it has been tested and found reliable.

FLOWER SEEDS, ROSES, SHRUBS, PLANTS AND BULBS. This department is showing an increase every year and is devoted to supplying the materials to make the home-grounds not only of the city and suburban resident but also of the farmer, attractive and in harmony with the well-kept farm and garden.

FIELD SEEDS. It is easy to increase or to lose in crop results because of the quality of seed used. The Field Seeds we offer are selected with special reference to their purity and germination. Every lot of seed is analyzed for purity and germination before it is offered for sale. Our aim has always been to furnish high-quality seeds rather than to sell inferior seeds at low prices.

Order Early. Our rush season comes in the months of April and May. To relieve congestion and reduce to a minimum the delay in filling orders, we solicit the coöperation of our customers by placing their orders early and taking delivery before the rush begins.

Remittances. These should be sent by Money Order, Registered Letter, Bank Draft, or Check. Amounts less than \$1 may be sent in postage stamps.

C. O. D. We will accept orders for shipment C. O. D. except on shrubs, roses, cabbage, and strawberry plants, or other perishable goods.

Price Changes. Prices are subject to change without notice. Should the price of any commodity be reduced, the difference in price will be refunded, or in case of advance, the customer will be notified before shipping.

Delivery. All prices are f.o.b. our store, or cars Pittsburgh, except where otherwise noted. Extra charge will be made for city and suburban delivery.

Quantity Rates. Half-bushels will be furnished at bushel rates; half-pecks at the peck rate; and half-pounds at the pound rate.

PARCEL-POST SHIPMENTS

Vegetable and Flower Seeds. We pay the postage on all packets, ounces, and pounds; also on Beans, Corn, and Peas in half-pints, pints, and quarts. Larger quantities add for postage at your zone rate.

Bulbs and Nursery Stock. Parcel-Post rates are given in connection with the prices.

Other Mailable Goods. Postpaid prices are named in the Catalogue and apply within the Second Parcel-Post Zone. Additional postage must be included beyond the Second Zone.

AGRICULTURAL IMPLEMENTS. We offer a complete line of all kinds of Farm Machinery, Garden and Lawn Implements, carefully selected from the products of the oldest and most reliable manufacturers. Our guarantee stands back of every implement that we offer.

DAIRY, POULTRY, PET, AND BEE SUPPLIES. In these departments we have specialized in items that will aid the farmers who do more than till the soil. Thus we have come to be the recognized headquarters for dairymen, poultrymen, and bee-keepers. Here also can be supplied the proper feeds for dogs, either pets or for show, and supplies for canaries and other birds.

OUR MAIL-ORDER TRADE. While we are always glad to have our customers come to our store, inspect our goods, and leave their orders, our list of regular mail-order customers is constantly growing, and appreciating the confidence thus placed in our service, it shall always be our aim to see that this branch of our trade receives special attention.

1876

1934

Our Message for 1934

WE SHOULD like you to feel that this is a personal message from our organization to you who are our friends and customers.

For many months we have been planning for the coming year. We have made contracts with reliable growers for the best seeds that can be produced, and the season finds us ready to provide you with specially grown, selected seed-stocks. With confidence we offer you seeds which we have tested for purity, trueness to type, and vitality of germination—seeds of the same high quality which you have learned to depend on through many years of satisfactory and gratifying results.

All merchandise listed in our Catalogue has been selected with the thought of giving you the greatest value and satisfaction. You will recognize many items well known through years of proved merit, and they need no introduction. Newer products are given a thorough trial before we introduce them to our customers.

This Catalogue has been prepared with great effort and care in details to make it a helpful and profitable guide for you to follow.

Make our store your headquarters when you are in Pittsburgh. We invite you to consult us about your problems freely and without obligation.

We thank you for your patronage and good will and hope we may continue our pleasant relations.



500 Liberty Avenue }
113 Diamond Street } PITTSBURGH, PA.

The I. W. SCOTT COMPANY

Telephone ★ Atlantic 2022

TELEPHONE ORDERS GIVEN PROMPT
AND CAREFUL ATTENTION



VEGETABLE SEEDS

The home-gardener, as well as the commercial grower, will find in our Vegetable Seed Department an unusually complete list of the best varieties in cultivation. There are varieties to suit every taste and every purpose. In describing them we have endeavored to make selection easy by telling the advantages as well as the disadvantages of each sort, describing as accurately as possible just how each should perform under normal conditions and good cultivation.

Quality First. For more than a half-century we have been supplying the most critical market-gardeners in our immediate territory with the best and purest strains of Vegetable Seeds. The steady increase of our trade during all these years among our home-gardeners, as well as those from distant points, is the best evidence that our seeds give satisfaction.

The test of a seed is the crop it produces—not the price paid for it. It is always our endeavor to supply only the highest bred and most vigorous seeds it is possible to grow. Even the best of seed is none too good when growing conditions are unfavorable, but poor seed will not produce good results, no matter

how much care and help the crop receives. The old saying, "The best is the cheapest," applies with greater force to seeds than to any other commodity. So with us, we aim to supply the highest quality at a fair price; quality comes first.

Whether you order by the packet or the pound, you will receive the same high quality seeds. All of our packet seeds, both vegetable and flower, are put up from exactly the same stocks that we use for pounds, pecks and bushels, so the small gardener can depend upon getting seeds as fresh and as choice in every way as those which the most critical market-gardeners demand. No order is too small to merit our best attention.

ASPARAGUS *Three ounces of seed will sow a 100-foot row; 15 pounds will sow an acre*

Tender young Asparagus shoots fresh from the garden! Those who know Asparagus only as it comes out of a can or with the fine flavor lost in hours of travel from the grower's fields to the table, have no idea of the delicious treat in store for them. Yet, contrary to common belief, Asparagus is no more difficult to grow than any other garden crop.

Equally good results may be secured by planting seed or roots; seed is cheaper but from one to two years' time is saved by starting with roots.

Once established, an Asparagus bed will continue to bear bountiful crops for years; so remember that a little care and patience at the start will be well repaid. Choose a well-drained spot and dig the soil deeply, pulverize it thoroughly and, at the same time, work in a goodly quantity of fertilizer. If the soil is heavy, mix in sand or coal ashes also. If you start with seed, sow it early in the spring, in shallow drills 12 to 15 inches apart, and when the plants are about 4 inches high, thin out the weak and crooked ones, leaving about four good strong plants to the foot.

The following spring, dig up the roots and transplant them to the permanent bed, in rows at least 3 feet apart, setting them 1½ to 2 feet apart in the rows. The roots should be well spread out, with the crown or top about 3 inches below the general level of the bed. Barely cover at first but fill in around the plants as they grow until the level of the surface is reached. No cuttings should be made the first year after transplanting, but the second season will bring a good crop.

MARY WASHINGTON. An improvement on Martha Washington and the result of years of breeding and selection by the U. S. Department of Agriculture. Plants vigorous, very productive and nearly rust-free. Shoots dark green, large, straight, with heavy purple overtone. **Seed**, pkt. 10 cts., oz. 30 cts., ¼lb. 75 cts., lb. \$2.50.

Two-year-old roots, by mail, postpaid, 50 cts. per doz., \$1.75 for 50, \$3 per 100; by express, not prepaid, \$9 for 500, \$16 per 1,000.

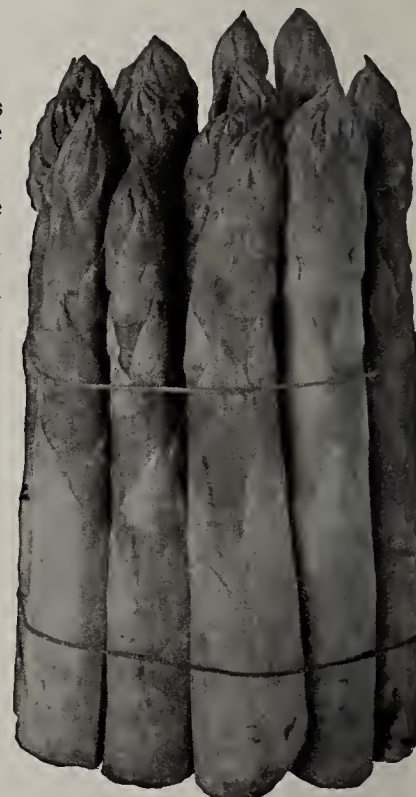
MARTHA WASHINGTON RUST-RESISTANT. A new variety developed by the U. S. Department of Agriculture. It produces abundant crops of large, tender stalks and is practically immune from "rust" and other Asparagus diseases. Without doubt, the finest strain of Asparagus now available. **Seed**, pkt. 10 cts., oz. 25 cts., ¼lb. 50 cts., lb. \$1.50.

Two-year-old roots, by mail, postpaid, 50 cts. per doz., \$1.65 for 50, \$2.75 per 100; by express, not prepaid, \$8 for 500, \$14 per 1,000.

CONOVER'S COLOSSAL. Large green stalks of enormous size and very productive. The standard market variety.

PALMETTO. Comes early; stalks light green. Smaller than the foregoing but more freely produced, and of better quality.

SEED of above two varieties, pkt. 10 cts., oz. 15 cts., ¼lb. 30 cts., lb. \$1.



Asparagus, Martha Washington

Broccoli

A kind of hardy cauliflower which thrives best in moist fall weather. Although an old-time garden product, its recent popularity urges generous planting. Grow like late cauliflower, sowing in May and transplanting in June or early July.

(An ounce of seed will produce 2,000 plants)

DI RAPPA. Productive new variety of high quality, with large, firm, bright green heads, which mature earlier than varieties commonly grown. Pkt. 15 cts., oz. 75 cts., ¼lb. \$2.50.

TRUE ITALIAN SPROUTING. A distinct variety with large, solid heads that stay green. Many sprouts develop from the leaf-axils after the heads are cut, and each terminates in a small head which is also edible. Pkt. 15 cts., oz. 75 cts., ¼lb. \$2.50.

French Artichoke

This highly prized salad can be grown in our climate, provided the plants are given light protection over winter. Start the seed indoors and give the same treatment as you would tomatoes, transplanting to the garden in May. The plants are perennial.

(An ounce of seed will produce 500 plants)

LARGE GREEN GLOBE. The best variety. Pkt. 15 cts., oz. 75 cts., ¼lb. \$2.75, lb. \$10.

Brussels Sprouts

Cultivate like cabbage, sowing the seed in April or May, either in a coldframe or in a sheltered spot in the garden, and transplant in June or early July, setting the plants 2 feet apart. The "sprouts" are like miniature cabbages growing along the main stem.

(An ounce of seed will produce 2,000 plants)
HALF-DWARF IMPROVED. Pkt. 10 cts., oz. 40 cts., ¼lb. \$1, lb. \$3.



Italian Broccoli

**INOCULATE THIS
SEED WITH
STIMUGERM**

BEANS

**Everyone Can
Grow Beans**

Few crops yield more bountiful returns from limited space. There are several classes of Beans and many varieties: all are rich in food value, containing a high proportion of muscle-building protein; served as "Snap" or "String" Beans they are particularly rich in vitamins. There are Green-podded, Wax-podded, and Lima Beans, and of each there are dwarf or bush and pole or running varieties. Generally speaking, the bush kinds bear earlier but the Pole Beans bear more heavily and for a longer time. If you have plenty of space, our advice is to grow some of both, depending on the dwarf sorts for the first pickings and on the pole varieties for the late or main crop. Between Green-podded and Wax-podded varieties there is little to choose, although the Green-podded Beans are generally preferred in local markets.

Growing Bush or Dwarf Beans in the Garden. Even a poor soil will grow Beans, although the heaviest yields are, of course, obtained on well-worked and moderately heavy loams. Wait until the ground is warm before you sow—early May is a good time to make the first sowing in this latitude. Open up furrows $1\frac{1}{2}$ to 2 feet apart and drop the Beans 2 or 3 inches apart in the furrow, covering them $1\frac{1}{2}$ to 2 inches deep. Later plantings should be covered $2\frac{1}{2}$ to 3 inches deep. Keep the soil well loosened around the plants from the time they are large enough to cultivate, but avoid touching them when they are wet with rain or dew, as this will nearly always cause the pods to "rust." For a constant supply of "String" Beans all summer make a new sowing every two weeks from early May until the first of August.

A pint of seed will sow 100 feet of furrow; 1 to $1\frac{1}{2}$ bushels, depending on variety, will be required for an acre when the seed is planted in drills.

Dwarf Green-podded Beans

ASGROW STRINGLESS BLACK VALENTINE. A new, hardy, prolific Bean of the true Black Valentine type, wholly without strings. Unsurpassed by any other on the market, and of easy culture. Quick-growing. $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$3, bus. \$10.

BOUNTIFUL. A splendid variety, well named, for it is extremely productive and always reliable. It is hardy and thrives on a variety of soils.

In a good many gardens it is the first Bean to come into bearing and it continues to bear for a long time if the pods are picked as fast as they become ready for use. The pods are flat, of good size and handsome appearance, always stringless, tender until full grown and of excellent flavor. Pkt. 10 cts., $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 55 cts., pk. \$2.50, bus. \$8.

BURPEE'S STRINGLESS GREEN-POD. Another general favorite. Stringless Green-Pod is early and productive, with pods a little shorter than Bountiful but round, thick, and very meaty; always perfectly stringless and tender even when old. If your soil is heavy clay, you will probably find it the best variety to grow. $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 55 cts., pk. \$2.50, bus. \$8.

GIANT STRINGLESS GREEN-POD. A little later to bear than the kinds described above but a very dependable producer of big crops. A good Bean to plant to succeed the first early varieties. The pods are long, round, and meaty, always stringless and tender, dark green and very handsome. Pkt. 10 cts., $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 55 cts., pk. \$2.50, bus. \$8.

IMPROVED EARLY RED VALENTINE. Extra-early strain of the old favorite, Red Valentine. The pods are round, meaty, and well-flavored. $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 55 cts., pk. \$2.50, bus. \$8.

NEW STRINGLESS GREEN-POD. In many respects similar to Full Measure, but four to six days earlier. Especially vigorous in growth, and is not as susceptible to adverse growing conditions as many of the stringless varieties. The pods are long, straight, round, meaty, entirely stringless, and of fine table quality. $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$3, bus. \$10.

FULL MEASURE. A well-known variety for market-gardens as well as home-gardens. It is early and under favorable conditions will outyield all other Green-podded Beans. The pods are of good size, round, thick, stringless, tender, and of excellent quality. $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 55 cts., pk. \$2.50, bus. \$8.

ITALIAN BLACK-EYE. A very prolific yielder with long, round, slender pods, dark green in color and stringless. It can be used green or for dry shell purposes. The dried seed is cream-colored with black eye. $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$3, bus. \$10.

STRINGLESS GREEN-POD REFUGEE. An improvement on the old 1,000-to-1, being perfectly stringless even when the pods have reached full size and are old enough to shell. The plants are large and thrifty, producing heavy crops; pods large, round, and fleshy. Ideal for canning. $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$3, bus. \$10.



Giant Stringless Green-Pod Beans



Bountiful Beans



Wardwell's Kidney Wax Beans

WARDWELL'S KIDNEY WAX. An old favorite, well known to gardeners everywhere. It is hardy, early, and of splendid quality. The pods are broad, flat, brittle, and almost stringless, waxy yellow in color. Pkt. 10 cts., $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 55 cts., pk. \$2.50, bus. \$8.

ROUND-POD KIDNEY, or Brittle Wax. This Bean is notable for its exceptional quality, being superior in flavor, remarkably brittle and tender, and absolutely stringless even after the Beans have ripened. The pods are long and round, bright yellow in color and very handsome. With good culture it produces very heavy crops. $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 55 cts., pk. \$2.50, bus. \$8.

KEENEY'S RUSTLESS GOLDEN WAX. A remarkably vigorous sort which is less liable to "rust" than other Wax-podded Beans. A good producer of medium-sized, flat, well-filled stringless pods. $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 55 cts., pk. \$2.50, bus. \$8.

IMPROVED GOLDEN WAX. Pods are flat and a little longer and thicker than those of the original Golden Wax. Hardy and prolific; quality fair. A profitable Bean for the market-gardener. $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 55 cts., pk. \$2.50, bus. \$8.

PENCIL-POD BLACK WAX. A late-bearing variety, valuable for midseason use. Not a heavy yielder but the long, slender, round pods are of fine quality. $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 55 cts., pk. \$2.50, bus. \$8.

DWARF GREEN-PODDED BEANS FOR SHELLING

DWARF HORTICULTURAL. Also known as Roman Bean. A fine producer of green Shell Beans; useful as a "String" Bean also, for the young pods are tender and meaty. The ripe Beans are round and speckled with purplish red. $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 60 cts., pk. \$2.75, bus. \$9.

WHITE KIDNEY. Largely grown for dry Shell Beans. Plants are tall, vigorous, and productive. The pods are of good size and showy but tough, and the ripe Beans are large, kidney-shaped, pure white and do not discolor when cooked. $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 60 cts., pk. \$2.75, bus. \$9.

WHITE MARROWFAT. The favorite Bean for baking. A good producer of large, white Beans of fine quality. $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 60 cts., pk. \$2.75, bus. \$9.

RED KIDNEY. Resembles the White Kidney except that the ripe Beans are red in color. $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 60 cts., pk. \$2.75, bus. \$9.

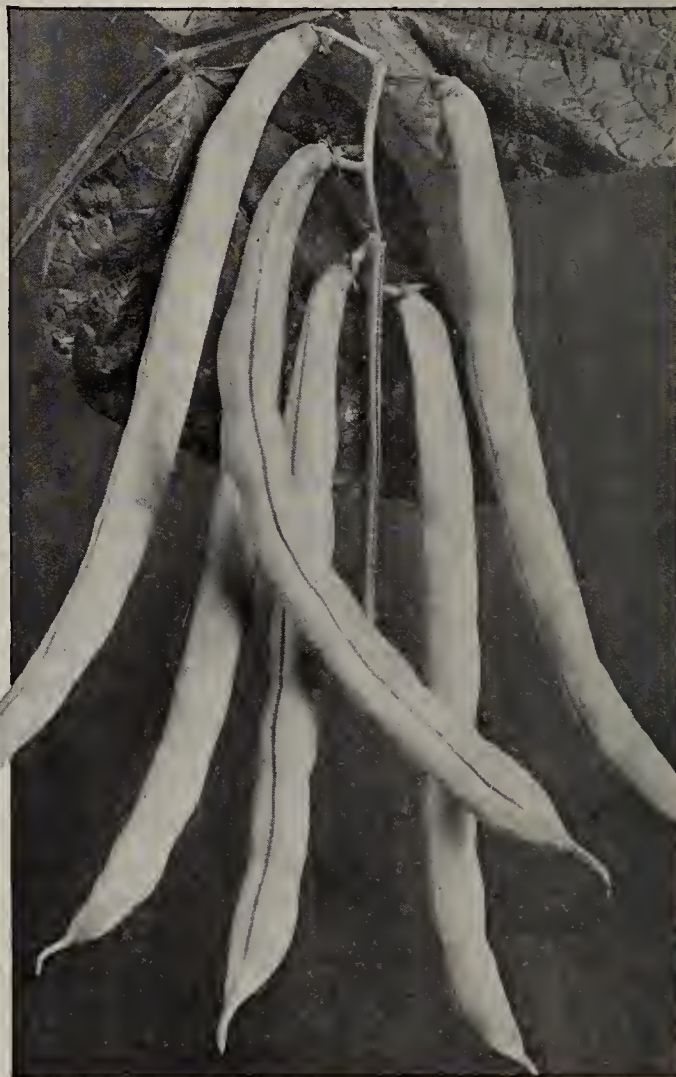
WHITE NAVY, or Pea Bean. Used mostly for field planting; a sure cropper and extremely prolific. The dried Beans are small, round, and white. $\frac{1}{2}$ pt. 20 cts., pt. 30 cts., qt. 50 cts., pk. \$2.50, bus. \$8.

DWARF WAX-PODDED BEANS

The Yellow- or Wax-podded Beans are considered more handsome in appearance and bring higher prices in some sections than the Green-pods. Generally speaking, they are good producers, but where rust or mildew is prevalent, do not stand up quite so well as the Green-podded varieties.

SURE-CROP STRINGLESS WAX. A strong-growing, early variety well described by its name, for it is a most dependable producer of large crops under all conditions. The pods are of good size and most attractive in

appearance, being broad, semi-round, and bright yellow color, entirely stringless, and of fine quality. We can highly recommend Sure-Crop for both market and home-gardens. Pkt. 10 cts., $\frac{1}{2}$ pt. 20c., pt. 35c., qt. 55c., pk. \$2.50, bus. \$8.



Sure-Crop Stringless Wax Beans

BUSH LIMA BEANS

One of the finest treats the garden offers is fresh, green Lima Beans. But remember that the seed is tender and will not grow in cold weather or wet ground. Wait until warm weather has surely come (the last of May is generally safe in this latitude), and then sow in a warm, sunny spot, preferably in a rich, mellow soil. Sow Bush Lima Beans in furrows about 1 inch deep and at least 2 feet apart, spacing the seeds 4 to 5 inches apart in the furrow. They will sprout quicker if planted with the "eyes" down. Later on the plants may be thinned to stand 8 to 10 inches apart as they yield best if given plenty of room. The Bush Limas bear earlier than the Pole varieties and are, therefore, more useful where the growing season is short.

A quart of seed will sow 150 feet of furrow; a bushel will sow an acre

BURPEE IMPROVED. A vigorous, productive variety. The bushes are large and bear loads of big, broad pods, each containing 4 to 5 Beans of the largest size and finest quality. Medium early. $\frac{1}{2}$ pt. 25 cts., pt. 40 cts., qt. 75 cts., pk. \$4.25, bus. \$15.

FORDHOOK. Probably the most popular Bush Lima and one of the best for the home-garden, for it is extra early and extremely prolific, bearing good-sized pods which contain 3 to 5 large, thick, meaty Beans of delicious quality. $\frac{1}{2}$ pt. 25 cts., pt. 40 cts., qt. 75 cts., pk. \$4.50, bus. \$16.

BURPEE'S BUSH. A hardy, reliable variety; prolific, medium early, and of good size and quality. $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$3.75, bus. \$13.

WOOD'S PROLIFIC. An improved strain of the Dwarf Sieva or small-seeded Lima. It is very productive and hardy; valuable for planting where the large-seeded Limas do not thrive. The quality is extra-fine. $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$3.75, bus. \$13.

POLE LIMA BEANS

These take longer to bear than the Bush Limas, but yield larger crops and continue to bear for a longer period. The seed is usually planted in hills, at least 3 feet apart each way, dropping 4 to 6 Beans to the hill. Set poles 8 to 10 feet long in each hill to support the vines.

A quart of seed will plant 100 hills; 20 quarts will plant one acre

LEVIATHAN. A general favorite, being early, vigorous, and productive, bearing loads of giant pods, well filled with large tender Beans. One of the most reliable varieties for the home-garden. $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$3.50, bus. \$12.

EXTRA-EARLY JERSEY. Comes into marketable size a week earlier than other varieties. Good size and fair quality. $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$3.50, bus. \$12.

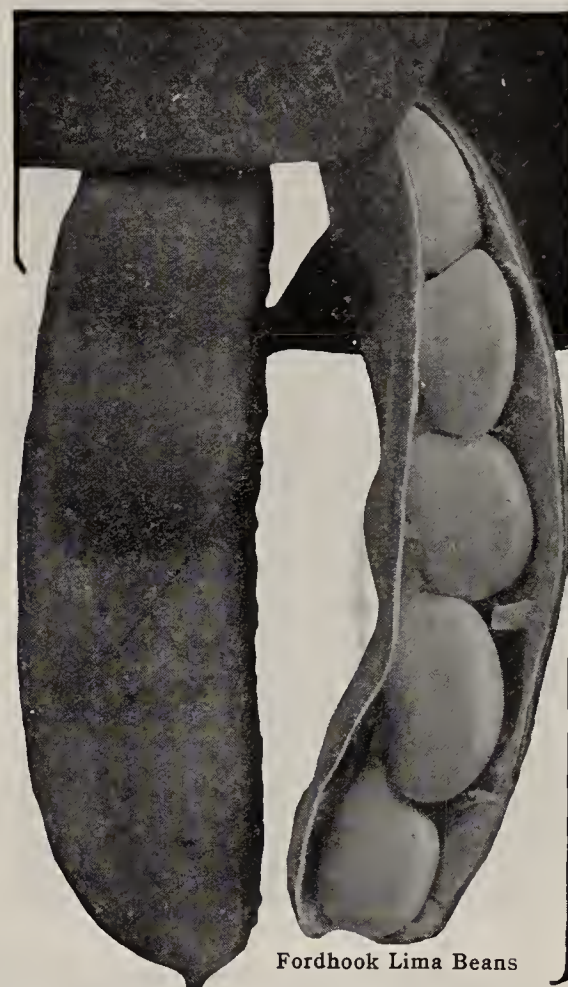
SIEBERT'S EARLY. Extra-early and one of the most productive. When freshly shelled the Beans are large and thick through and of fine quality. $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$3.50, bus. \$12.

DETROIT MAMMOTH. The largest-podded variety in cultivation. Medium early, extremely vigorous and prolific, bearing pods 9 to 11 inches long, containing 5 to 7 mammoth Beans of excellent quality. $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$3.75, bus. \$13.

KING OF THE GARDEN. The strongest growing and most productive of the large Limas, bearing broad pods 5 to 6 inches long, containing 4 or 5 large, flat Beans. Allow only two vines to each pole. $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$3.50, bus. \$12.

CARPINTERIA. This medium-late variety sets the standard for quality among Pole Limas. It bears large pods, containing 3 to 5 Beans which are very thick and mealy and retain their green color even when ripe. $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$3.50, bus. \$12.

LARGE WHITE. The old standard large-seeded Pole Lima; medium early and vigorous. $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$3.50, bus. \$12.



Fordhook Lima Beans



Leviathan Pole Lima Bean

We aim to carry a complete line of Insecticides, and the machines for applying same. Our line of Sprayers and Dusters is complete and up-to-date, and meets all requirements. Prices and descriptions of Insecticides will be found on pages 74 to 79 and Sprayers and Dusters on pages 110 to 115.

For the Mexican Bean Beetle we recommend Dutox, described on page 78, or if liquid spray is preferred, we suggest Red Arrow, described on page 76.

All seeds postpaid at prices quoted, except as noted under "Parcel-Post Shipments" on inside front cover page



Kentucky Wonder Beans

WAX- AND GREEN-PODDED POLE BEANS

The Pole Beans do not come into bearing so quickly as the Bush varieties but they yield much larger crops and, if kept picked, will continue to bear for several weeks. As the seed is rather tender, they should not be started until about two weeks after it is safe to sow Bush Beans. They succeed best in a well-drained mellow soil which has been liberally enriched with manure. The usual practice is to grow them in hills placed 3 to 4 feet apart, using poles about 8 feet long to support the vines. Drop 6 to 10 Beans in each hill and cover 2 inches deep, thinning out when the plants are well started so as to leave only 3 or 4 of the strongest on each pole. By using string or wire as support, one stout pole may be made to serve several hills.

A quart of seed will plant 100 to 150 hills; from 12 to 16 quarts will plant an acre according to the size of the Beans

KENTUCKY WONDER. The most popular Pole Bean. It is early, reliable under all conditions, and immensely productive, bearing long, round, dark green pods which are tender, stringless when young, and of fine quality. Pkt. 10 cts., $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 60 cts., pk. \$3, bus. \$10.

KENTUCKY WONDER WAX. Similar in vigor and productiveness to the green-podded Kentucky Wonder but the pods are broader and light yellow in color, fleshy and brittle and slightly stringy. Pkt. 10 cts., $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$3.50, bus. \$12.

GOLDEN CLUSTER WAX. Extra-early and bears for a long season. The pods are of medium length, broad and flat, waxy yellow and most attractive in appearance. In flavor the Golden Cluster Wax Bean is unsurpassed, but the pods should be picked young for they become rather stringy when full grown. $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$3.50, bus. \$12.

LAZY WIFE. Late but very productive, carrying great clusters of green pods which are 5 to 6 inches long, semi-round, meaty, stringless, tender, and richly flavored. Useful also as a Shell Bean. $\frac{1}{2}$ pt. 20c., pt. 35c., qt. 65c., pk. \$3.25, bus. \$11.

BURGER'S GREEN-POD STRINGLESS. Also known as the White-seeded Kentucky Wonder. Extra-early and prolific, bearing round, brittle pods of fine quality. $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$3.25, bus. \$11.

KING HORTICULTURAL. Also known as Pole Roman Bean or Speckled Cranberry. Late but productive; pods short, broad, pale green streaked with red. The Beans are extra-good, either green or dry. $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$3.25, bus. \$11.

SCARLET RUNNER. A distinct type largely used as an ornamental climber. It grows rapidly; the foliage is luxuriant and the bright scarlet blossoms are most attractive. Pods light green. The dried Beans are used like Limas. $\frac{1}{2}$ pt. 25 cts., pt. 40 cts., qt. 75 cts., pk. \$4.25, bus. \$15.

ASPARAGUS, or Yard-Long. A quick-growing Pole Bean with slender, curved pods 2 feet or more in length. Tender and flavorful when young. $\frac{1}{2}$ pt. 45 cts., pt. 75 cts., qt. \$1.25.

Mangel-Wurzel or Cattle Beets

The Mangels furnish large quantities of nutritious and healthful food for stock and poultry—yields of twenty-five to thirty tons and more per acre are often obtained. Sow the seed in April or early May and when the plants are 2 or 3 inches high, thin them out to stand 8 to 10 inches apart. Harvest before frost and store in pits outdoors or in a dry, frost-proof cellar.

Four to 5 pounds of seed will sow an acre in drills, 8 to 10 pounds when broadcast

LONG RED MAMMOTH. The heaviest yielder, producing enormous roots which grow largely above ground and are easy to harvest. Particularly fine for milch cows. Oz. 10 cts., $\frac{1}{4}$ lb. 20 cts., lb. 50 cts., 5 lbs. \$2.25.

NORBITON GIANT LONG RED. Somewhat similar to the above. Excellent for feeding to stock. Oz. 10 cts., $\frac{1}{4}$ lb. 20 cts., lb. 50 cts., 5 lbs. \$2.25.

RED GLOBE. Oval or globe-shaped, giving heavy yields on shallow soils. A good keeper. Oz. 10c., $\frac{1}{4}$ lb. 20 cts., lb. 50 cts., 5 lbs. \$2.25.

GOLDEN TANKARD. Large, long roots unusually high in feeding value. A splendid cropper on fairly deep soils. Oz. 10 cts., $\frac{1}{4}$ lb. 20 cts., lb. 50 cts., 5 lbs. \$2.25.

WHITE SUGAR. Very productive, rich in sugar and especially good for stock-feeding. Oz. 10 cts., $\frac{1}{4}$ lb. 20 cts., lb. 50 cts., 5 lbs. \$2.25.

KLEIN WANZLEBEN. Rigorously selected for high sugar content and the most popular variety with the sugar-beet growers. We offer a productive, easily grown strain. Oz. 10 cts., $\frac{1}{4}$ lb. 20 cts., lb. 50 cts., 5 lbs. \$2.25.



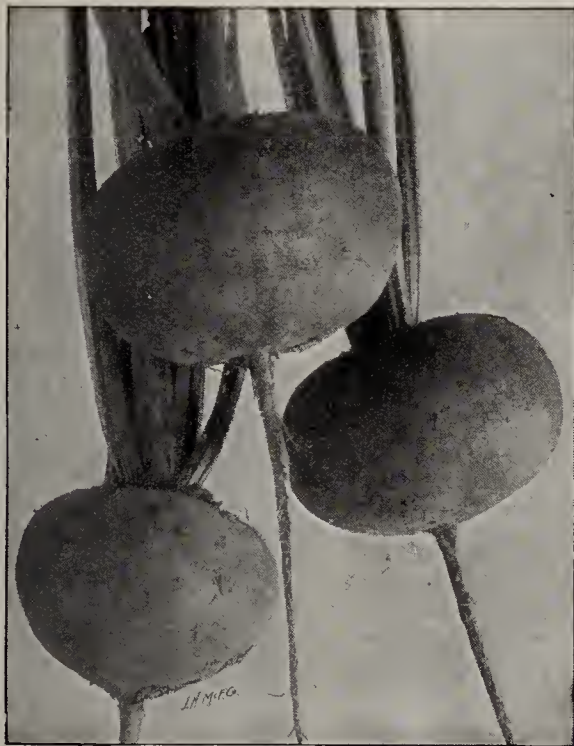
Long Red Mangel-Wurzel

BEETS

An ounce of seed will sow about 50 feet of drill; 6 pounds an acre

But little space is required to grow a good crop of Beets, and almost any soil will do, although the ground should be dug deeply and made fine and mellow with fork and rake if you want smooth, tender, well-developed roots. Make a first sowing as early in the spring as the ground can be worked. Scatter the seed in drills 15 to 18 inches apart, covering the seed about an inch deep and pressing the soil down firmly above it. When the seedlings are about 3 inches high, thin them out so that they will stand 2 to 3 inches apart in the row. The little Beets and "greens" removed in thinning, cooked together, make a delicious dish. Frequent cultivation will help to bring the crop along rapidly. As you harvest the Beets, pull out alternate plants, thus leaving more room for the rest to develop. You can insure a continuous supply of fresh young Beets for the table by making sowings every three to four weeks from early spring up to the middle of July. Late in June make a large planting to produce Beets for winter use. Harvest before frost and store in pits outdoors, or in a dry cellar, covered with sand to prevent shriveling or drying out.

If you want to beat your neighbor with early Beets in the spring, start some seed in a coldframe or in a box indoors in February or March and reset the plants in the open garden early in April.



Crosby's Extra-Early Beets

CROSBY'S EXTRA-EARLY.

The standard early variety for both home-garden and market use. A very superior selection from the old flat Egyptian, being more globe-shaped, nearly as early, and of better quality. The skin is dark red and the flesh deep red. Our stock is highly bred and runs very uniform in shape and size. Pkt. 10 cts., oz. 15 cts., 1/4lb. 35 cts., lb. 85 cts., 5 lbs. \$3.75.

EXTRA-EARLY EGYPTIAN. One of the earliest varieties, making medium-sized, flat, smooth roots with dark crimson skin and flesh. Fine for first crop. Specially adapted for transplanting from hotbeds in early spring. Pkt. 10 cts., oz. 15 cts., 1/4lb. 35 cts., lb. 85 cts., 5 lbs. \$3.75.

EARLY MODEL. An extra-early Beet that is top-notch in quality. The roots are uniformly globe-shaped, with smooth, dark red skin and fine-grained, crimson flesh. Pkt. 10 cts., oz. 15 cts., 1/4lb. 35 cts., lb. 85 cts., 5 lbs. \$3.75.

EARLY WONDER. A new strain of Crosby's Egyptian Beet. Smooth, dark red flesh. Early. Extra-good for market-gardeners. Pkt. 10 cts., oz. 15 cts., 1/4lb. 35 cts., lb. 85 cts., 5 lbs. \$3.75.

EARLY BLOOD TURNIP. An old standby; round with small tap-root, dark red skin and bright red flesh of good quality. Pkt. 10 cts., oz. 15 cts., 1/4lb. 35 cts., lb. 85 cts., 5 lbs. \$3.75.

DETROIT DARK RED. Undoubtedly the most popular variety in cultivation. It is early, smooth, and uniformly globe-shaped, with dark red skin and flesh, fine-grained, tender and sweet. Pkt. 10 cts., oz. 15 cts., 1/4lb. 35 cts., lb. 85 cts., 5 lbs. \$3.75.

PERFECTED DETROIT. An improved strain of Detroit Dark Red. It is early, with round, dark red root and medium foliage. Has no white rings and is splendid for home-gardens, for market, and for canning. Pkt. 10 cts., oz. 15 cts., 1/4lb. 40 cts., lb. \$1, 5 lbs. \$4.50.

SWISS CHARD

This is a kind of beet which does not make edible roots but produces instead quantities of large leaves which are prepared like spinach. In addition, the stems and midribs make a palatable dish when stewed like celery. With growing appreciation of the valuable part that "greens" play in our diet, Swiss Chard has become one of our most popular vegetables. The seed should be sown in early spring and given the same culture as beets, except that the plants should be thinned to stand 8 to 10 inches apart. Pull the leaves off as they become ready and new ones will grow in their place.

An ounce of seed will sow about 100 feet of drill

LUCULLUS GIANT. A tall variety with deeply wrinkled and crumpled leaves. Pkt. 10 cts., oz. 15 cts., 1/4lb. 35 cts., lb. 85 cts.

FORDHOOK GIANT. An outstanding new variety with curly, rich blue-green leaves and broad white ribs, of a quality better than spinach. Pkt. 10 cts., oz. 15 cts., 1/4lb. 35 cts., lb. 85 cts.



Early Wonder Beet



Lucullus Giant Swiss Chard

CABBAGE

The chief requisites for growing Cabbage are rich soil and plenty of water. If your soil is hard and poor, add manure, the more the better, and dig it in thoroughly, making the surface as fine and mellow as possible. For early Cabbage, sow seed in hotbed or boxes indoors in January or early February. As transplanting time approaches (about April 15) "harden" the plants by exposing them to the air on warm days so that cold weather or even a light frost will not injure them after they are set out. Start the second crop in March or April. Winter Cabbage is sown in early May and transplanted to the garden in July.

Rows should be at least 2 feet apart, and plants from 1½ to 2 feet apart in the rows, according to variety, the early sorts requiring less space than the large-heading winter Cabbages.

Frequent doses of nitrate of soda will push the young plants along rapidly. The most troublesome pest is the green cabbage worm which, however, is easily controlled by dusting with Slug Shot or similar insecticides. Cultivation to keep down the weeds and preserve the moisture in the soil is important. Give water if necessary during the dry spells.

An ounce of seed will produce 1,500 to 2,000 plants

GOLDEN ACRE. A new early round-headed Cabbage, resembling Copenhagen Market, but a few days earlier. Earliness and fine quality make it a leader of the round-headed varieties. Pkt. 10 cts., oz. 35 cts., ¼lb. \$1, lb. \$3.

COPENHAGEN MARKET, SPECIAL STRAIN. The result of years of breeding by European growers and far superior to the ordinary strain. A profitable variety for market-gardeners. Pkt. 15 cts., oz. 50 cts., ¼lb. \$1.50, lb. \$5.

COPENHAGEN MARKET. The leading early Cabbage, both for market and home-gardens. It grows rapidly to large size, maturing in about 100 days from sowing. The heads are round, extremely solid, with small core and of excellent quality. Pkt. 10 cts., oz. 35 cts., ¼lb. \$1, lb. \$3.

SELECT EARLY JERSEY WAKEFIELD. A leader for many years. Matures its rather small, solid, pointed heads in 100 days from sowing. One of the most reliable early sorts; hardy and resistant to frosts and unfavorable weather. Can be planted close together. Pkt. 10c., oz. 35c., ¼lb. 90c., lb. \$2.50.

GLORY OF ENKHUIZEN. A Dutch strain which closely resembles Copenhagen Market, but makes a little larger growth and matures a week to ten days later. Being less particular as to soil, it is a more reliable Cabbage for the home-garden and a splendid second-early for market. The heads are solid and of fine quality. It is a good keeper and is sometimes grown as a winter Cabbage. Pkt. 10c., oz. 35c., ¼lb. \$1, lb. \$3.



Danish Ballhead Cabbage



Copenhagen Market Cabbage

EARLY SUMMER. Well-known, second-early Cabbage of the flat or drumhead type. Heads are of medium size, flat, and quite solid. Pkt. 10 cts., oz. 35 cts., ¼lb. 90 cts., lb. \$2.50.

BURPEE'S ALLHEAD. Heads a little larger and deeper than Early Summer. A select, uniform, sure-heading strain. About ten days later than Jersey Wakefield. Fine for winter if sown late. Pkt. 10 cts., oz. 35 cts., ¼lb. 90 cts., lb. \$2.50.

SUCCESSION. A second-early drumhead variety which is a sure header under all conditions and at all seasons. A little later than Allhead but considerably larger. Pkt. 10 cts., oz. 35 cts., ¼lb. 90 cts., lb. \$2.50.

PREMIUM FLAT DUTCH. One of the best winter Cabbages for the home-garden or market. A heavy yielder, producing large, heavy, flat heads which keep well until late in winter. Pkt. 10 cts., oz. 35 cts., ¼lb. 90 cts., lb. \$2.50.

HOLLANDER, or Short-Stem Danish Ballhead. The most popular variety for late market. The heads are of only medium size but round, deep, and sound as a bullet, exceeding all others in keeping quality. On strong lands it produces large tonnages and commands a good price even when others are not salable. Pkt. 10 cts., oz. 35 cts., ¼lb. 90 cts., lb. \$2.50.

PENN STATE BALLHEAD. A very superior Cabbage developed at Pennsylvania State College. The hard, tight heads weigh one-third more than ordinary heads of same size and are unusually good keepers. Matures in 130 days. Pkt. 15 cts., oz. 50 cts., ¼lb. \$1.50, lb. \$5.

RED CABBAGE

DANISH ROUND RED. A superior strain of Red Cabbage with very hard, perfectly round heads in which the deep color extends clear to the center. Fine for pickling and probably the best of the Red Cabbages, particularly on good soils. Pkt. 10c., oz. 35c., ¼lb. \$1, lb. \$3.

MAMMOTH ROCK RED. Heads flattened and very large. A reliable and popular Red Cabbage, well known with market growers. Pkt. 10 cts., oz. 35 cts., ¼lb. \$1, lb. \$3.

SAVOY CABBAGE

Savoy Cabbages are popular because of their rich flavor and late-keeping qualities. The leaves are curled and crinkled, and the heads are firm and solid. They are best late in the season after a heavy frost.

AMERICAN DRUMHEAD SAVOY. A vigorous, hardy variety with large, solid heads and few outer leaves. Pkt. 10 cts., oz. 35 cts., ¼lb. 90 cts., lb. \$2.50.

AIRE. Extra early, with fine curled leaves and pointed head. Pkt. 10 cts., oz. 35 cts., ¼lb. 90 cts., lb. \$2.50.

CHINESE or CELERY CABBAGE

PE-TSAI. Produces heads often 2 feet high and 6 inches or more in diameter. Sow the seed the last of June or early in July, in shallow drills about 2 feet apart, and thin or transplant the seedlings to stand about 15 inches apart. The outer leaves may be used as a salad while the plants are growing and the heads, which are quite solid and blanched within, have a delicious flavor either as a salad or cooked like asparagus. Pkt. 10 cts., oz. 40 cts., ¼lb. \$1.25, lb. \$3.50.

FROSTPROOF CABBAGE PLANTS

These plants are grown in the South where the conditions are just suited for growing tough, hardy Cabbage plants during the winter and early spring. In the northern states they can be planted in the open ground a month to six weeks sooner than home-grown plants, and they will stand a temperature of 20 degrees above zero without injury. We can furnish Early Jersey Wakefield, Copenhagen Market, Succession, and Early Flat Dutch and fill orders from December 1 to May 15. Plants are shipped direct from growing station in the South. Specify shipping date on your order.

PRICES BY PARCEL POST, POSTAGE PAID: 50 cts. per 100, \$1.50 for 500, 1,000 or more, \$3 per 1,000.

BY EXPRESS, BUYER PAYING EXPRESS CHARGES: 1,000 to 5,000 plants, \$2 per 1,000; 5,000 or more, \$1.50 per 1,000.



American Drumhead Savoy Cabbage. See page 8

CARROTS

A little more particular as to soil than beets, but otherwise just as easy to grow, Carrots deserve a place in every garden. Always recognized as wholesome adjuncts to the diet, they have recently been found to be very rich in the important vitamins, while no one who has eaten fresh, tender, young Carrots will deny that they make one of the most delicious dishes the garden can supply.

The best crops are grown on soils that were well manured the previous season but good results can be obtained on any good garden soil, provided it is dug deeply and thoroughly pulverized. Freshly manured ground is to be avoided, for it will produce split and misshapen roots. Sow the seed any time after the frost is out of the ground, in shallow drills 15 to 20 inches apart, covering it about an inch deep and pressing the soil down firmly over the seed. When the seedlings are well up, thin them out, leaving them standing about 2 inches apart in the rows. Later on as they begin to reach the edible stage, they may be thinned again, so as to leave at least 4 inches between plants which are to remain until they attain full size. To insure a constant supply, make sowings every three or four weeks from late March to the end of June. Early June is a good time to sow the main crop for roots to be stored like beets for winter use.

An ounce of seed will sow about 100 feet of drill; 3 to 4 pounds are required to sow an acre

EARLY SCARLET HORN, BLUNT ROOT. A quick-growing variety which makes thick, blunt-ended roots about 3 inches long, deep reddish orange in color, and of excellent quality. A fine Carrot for early use and for forcing in frames. Tops small. Pkt. 10 cts., oz. 20 cts., ¼lb. 50 cts., lb. \$1.25.

RED-CORED CHANTENAY. A recent introduction of a rich orange color, decidedly deeper than the ordinary Chantenay. The cores are small and nearly the same color as the flesh. Roots are uniform in size and appearance, and a little earlier in maturity than ordinary Chantenay. The surface of the root is smooth and free from large eyes and side rootlets. Pkt. 10 cts., oz. 20 cts., ¼lb. 50 cts., lb. \$1.25.

DANVERS HALF-LONG. The most popular Carrot for the main crop, being a reliable, heavy-yielding variety of excellent quality and attractive appearance. The roots are smooth, nearly cylindrical, bluntly pointed, and in good soil will attain a length of 6 to 8 inches. The skin and flesh are bright orange-red, fine-grained and tender. Market-gardeners find it an ideal variety for bunching and it is a splendid winter keeper. Pkt. 10 cts., oz. 20 cts., ¼lb. 50 cts., lb. \$1.25.

CHANTENAY. Grows more quickly than Danvers and the roots are shorter but broader at the top, tapering to an abrupt point. It produces heavy yields on comparatively shallow soils. Chantenay is largely grown by market-gardeners and is a splendid main-crop Carrot for the home-garden. Pkt. 10 cts., oz. 20 cts., ¼lb. 50 cts., lb. \$1.25.

HALF-LONG LUC. A French variety of the Danvers type, noted for its superior quality. The flesh is deep in color, very sweet and tender, and almost entirely free from core. Not so hardy as other main-crop Carrots but will produce big crops on well-prepared soil. Pkt. 10 cts., oz. 20 cts., ¼lb. 50 cts., lb. \$1.25.

ST. VALERY. A medium-long, tapering or pointed Carrot of fine quality; about 10 inches long and unusually smooth and symmetrical, deep reddish orange in color, and very attractive in appearance. Pkt. 10 cts., oz. 20 cts., ¼lb. 50 cts., lb. \$1.25.

IMPROVED LONG ORANGE. A fine strain of the pointed type, producing large, tapering roots 12 to 14 inches long, smooth, bright orange in color and of good quality. On deep, mellow soils it will yield enormous crops. Besides being an excellent table Carrot, it is much planted for feeding to stock. Pkt. 10 cts., oz. 20 cts., ¼lb. 50 cts., lb. \$1.25.



Chantenay Carrot



Danvers Half-Long Carrots



Golden Evergreen Sweet Corn

SWEET CORN

One quart of seed will plant 200 to 300 hills or 300 feet of row; 6 to 8 quarts will plant an acre

The one vegetable which every American gardener wants to grow is Sweet Corn, and, fortunately, it is one of the easiest to grow, thriving on most all soils and requiring only a minimum of attention. Since the seed is rather tender, do not make the first sowing until the soil is warm and comparatively dry—the middle of May is usually the earliest it is safe to sow Corn in this section. It can be grown in hills or in rows, the latter method being usually preferred. Hills are placed 2 to 3 feet apart each way, dropping about six seeds in each hill and, when the plants are about 8 inches high, pulling out all but the three or four strongest. Rows are spaced $2\frac{1}{2}$ to $3\frac{1}{2}$ feet apart and the plants thinned to stand 12 to 15 inches apart in the rows. Generally speaking, the late varieties grow larger and require more room than the early sorts. In planting, cover the seed about 2 inches deep, or a little deeper if the weather is very dry. Growing Corn requires lots of water. To preserve all the moisture in the soil and, incidentally, keep down weeds, hoe or cultivate frequently, taking care, however, not to go too deep as Corn roots spread out close to the surface. In order that the ears may develop perfectly they must receive plenty of pollen from near-by stalks; consequently, it is always best to plant Sweet Corn in several short rows, side by side, rather than in one or two long rows. Many gardeners plant only one or two quick-maturing varieties, securing a continuous supply by making sowings every ten days or two weeks from mid-May to early July. Others follow the plan of sowing, all at one time, a number of sorts which will mature in succession. If you want to enjoy Sweet Corn far sweeter and richer than any you have ever been able to buy, grow it yourself and pick it just before it is to be cooked.

BURBANK'S BANTAM. Stalks usually grow to a height of $4\frac{1}{2}$ to 5 feet. The ear is 7 to 8 inches long, has 12 to 16 rows, and matures for table use in 65 to 70 days. It has the original Golden Bantam flavor and is about a week earlier. $\frac{1}{2}$ pt. 20 cts., pt. 30 cts., qt. 50 cts., pk. \$2.50, bus. \$7.50.

GOLDEN SUNSHINE. An improvement on Golden Bantam in that the ears are an inch longer, 12-rowed instead of 8-rowed, and it matures about 10 days earlier. It is an attractive golden yellow and equal in quality to the later varieties. $\frac{1}{2}$ pt. 20 cts., pt. 30 cts., qt. 50 cts., pk. \$2.50, bus. \$8.

GOLDEN EARLY MARKET. This variety was introduced several years ago and has met with very much favor among the market-gardeners. It is about as early as Golden Sunshine, with 8- to 12-rowed ears 6 to 7 inches long. Stalks about 5 feet high, quite sturdy in habit, and ears form close to the stalk and upright. An outstanding early yellow variety. $\frac{1}{2}$ pt. 20 cts., pt. 30 cts., qt. 50 cts., pk. \$2.50, bus. \$7.50.

WHIPPLE'S EARLY YELLOW. Ears about twice the size of Golden Bantam, 12- to 16-rowed, of very fine quality. Matures in about 85 days. $\frac{1}{2}$ pt. 20c., pt. 30c., qt. 50c., pk. \$2.50, bus. \$7.50.

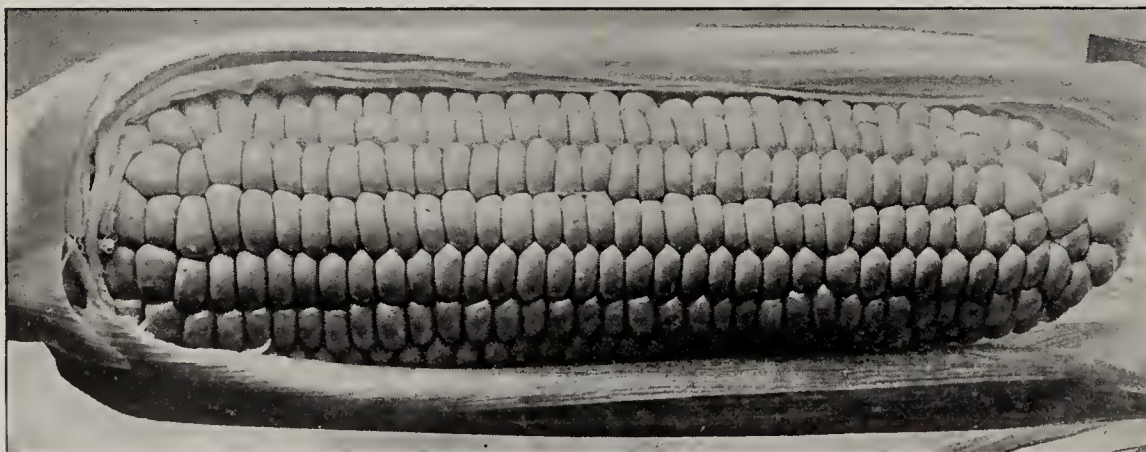
GOLDEN BANTAM. The delicious little golden yellow ears are known wherever Sweet Corn is grown. It is one of the quickest to mature its crop, and, since the seed is hardy and can be planted a week or so earlier than other sorts, it can always be depended upon to supply the first true Sweet Corn of the season. Pkt. 10 cts., $\frac{1}{2}$ pt. 20 cts., pt. 30 cts., qt. 50 cts., pk. \$2.25, bus. \$7.

DELUE'S GOLDEN GIANT. Undoubtedly the finest Sweet Corn now in cultivation! The result of many years of rigorous scientific breeding, it is as sweet, tender, and rich in flavor as the famous Golden Bantam, practically as early, more productive, and much larger. $\frac{1}{2}$ pt. 20 cts., pt. 30 cts., qt. 50 cts., pk. \$2.50, bus. \$7.50.

BARDEN'S WONDER BANTAM. An excellent variety for home or market growers. Large yellow deep grains. Ears a third larger than Golden Bantam, often 8 to 10 inches long. Stalks 5 to 6 feet high. Early as Bantam and equal if not superior in quality. $\frac{1}{2}$ pt. 20 cts., pt. 30 cts., qt. 50 cts., pk. \$2.50, bus. \$7.50.

GOLDEN EVERGREEN. A fine, large-eared, deep-grained yellow Sweet Corn, produced by crossing Golden Bantam and Stowell's Evergreen. A midseason Corn that remains tender and sweet for a long time after it reaches full size. $\frac{1}{2}$ pt. 20 cts., pt. 30 cts., qt. 50 cts., pk. \$2.25, bus. \$7.

EARLY MAYFLOWER. The earliest white Sweet Corn that produces an ear of good size and quality. Medium in growth, productive and hardy, bearing ears 7 inches long with 8 or 10 rows of broad, tender, pure white kernels. Fine for first early. $\frac{1}{2}$ pt. 20 cts., pt. 30 cts., qt. 50 cts., pk. \$2.50, bus. \$7.50.



DeLue's Golden Giant Corn

Protect your Corn with Stanley's Crow Repellent. See page 78

SWEET CORN, continued

GOLDEN CROSS BANTAM. (Hybrid.) Excellent for market-gardeners or for the home-garden. Stalks sturdy, with exceptionally broad, dark green leaves. Ears 10- to 14-rowed and 7½ to 8 inches long. Ready for market in about 88 days. Very prolific. Highly resistant to Stewart's disease. Extremely uniform in plant and ear characteristics and maturity. ½pt. 30 cts., pt. 50 cts., qt. 90 cts., pk. \$6.50.

PREMO. Long, slender, 8-rowed ears with short, broad grains, very sweet and tender. A little later than Peep o'Day. ½pt. 20 cts., pt. 30 cts., qt. 50 cts., pk. \$2.25, bus. \$7.

KENDEL'S EARLY GIANT. One of the most popular of the medium-early white Sweet Corns for market. Ears 8 to 9 inches long and 12-rowed, of good quality and very productive. ½pt. 20 cts., pt. 30 cts., qt. 50 cts., pk. \$2.25, bus. \$7.

HOWLING MOB. Undoubtedly the finest of the medium-early varieties, unusually large for so early a sort and not surpassed in quality by any other white Sweet Corn. It comes in about 12 days after Mayflower. The best second-early Sweet Corn for the home-garden and extensively planted for market. ½pt. 20 cts., pt. 30 cts., qt. 50 cts., pk. \$2.25, bus. \$7.

EARLY CHAMPION. Ready for use about the same time as Howling Mob; ears large, 14- or 16-rowed, well filled with large, broad grains of good quality. ½pt. 20 cts., pt. 30 cts., qt. 50 cts., pk. \$2.25, bus. \$7.

WHIPPLE'S EARLY WHITE. Matures about a week later than the small extra-early sorts. Ears 8 to 9 inches long with 16 or 18 rows of pearly white and sweet grains. ½pt. 20 cts., pt. 30 cts., qt. 50 cts., pk. \$2.25, bus. \$7.

EARLY EVERGREEN. An early selection of the old standby, Stowell's Evergreen. A vigorous, productive strain, not quite so tall but several days earlier than Stowell's, bearing large ears of typical Evergreen type and quality. ½pt. 20 cts., pt. 30 cts., qt. 50 cts., pk. \$2.25, bus. \$7.

SCOTT'S EARLY PERFECTION. Introduced by us more than twenty years ago, this variety has grown in popularity every year it has been in cultivation. As an early main-crop white Sweet Corn it has no superiors for either home or market use. It follows close after Howling Mob. Pkt. 10 cts., ½pt. 20 cts., pt. 30 cts., qt. 50 cts., pk. \$2.50, bus. \$7.50.

EARLY MAMMOTH. The earliest of the so-called Mammoth varieties. Coming in with Early Evergreen, it produces heavy ears 9 inches long with very broad grains of delicious quality. ½pt. 20 cts., pt. 30 cts., qt. 50 cts., pk. \$2.25, bus. \$7.

STOWELL'S EVERGREEN. The old, reliable, ever-popular late variety. The ears are 8 to 10 inches long with 16 or 18 rows of very deep, sweet kernels. It remains tender and sweet for a long time. Pkt. 10 cts., ½pt. 20 cts., pt. 30 cts., qt. 50 cts., pk. \$2.25, bus. \$7.

WHITE EVERGREEN. An exceptionally sturdy and productive strain of Stowell's, bearing a slightly larger, broader ear and broader, whiter grain. Of high quality and perhaps the best for canning. ½pt. 20 cts., pt. 30 cts., qt. 50 cts., pk. \$2.25, bus. \$7.

LATE MAMMOTH. The largest of all Sweet Corns and one of the very finest in quality. Ears often 12 inches long, deliciously sweet. A week or ten days later than Evergreen. ½pt. 20 cts., pt. 30 cts., qt. 50 cts., pk. \$2.25, bus. \$7.

COUNTRY GENTLEMAN. The favorite main-crop Corn with many gardeners, on account of its fine rich flavor. The ears are 7 to 8 inches long with long, narrow kernels set densely and irregularly on a very small cob. Often called "Shoe-Peg." Pkt. 10 cts., ½pt. 20 cts., pt. 30 cts., qt. 50 cts., pk. \$2.50, bus. \$7.50.

BLACK MEXICAN. The ears are of good size with broad kernels which are bluish white when they reach the edible stage and turn violet when cooked. Not desirable for market on account of its color but its distinct flavor makes it a great favorite for the home-garden. ½pt. 20 cts., pt. 30 cts., qt. 50 cts., pk. \$2.50, bus. \$8.

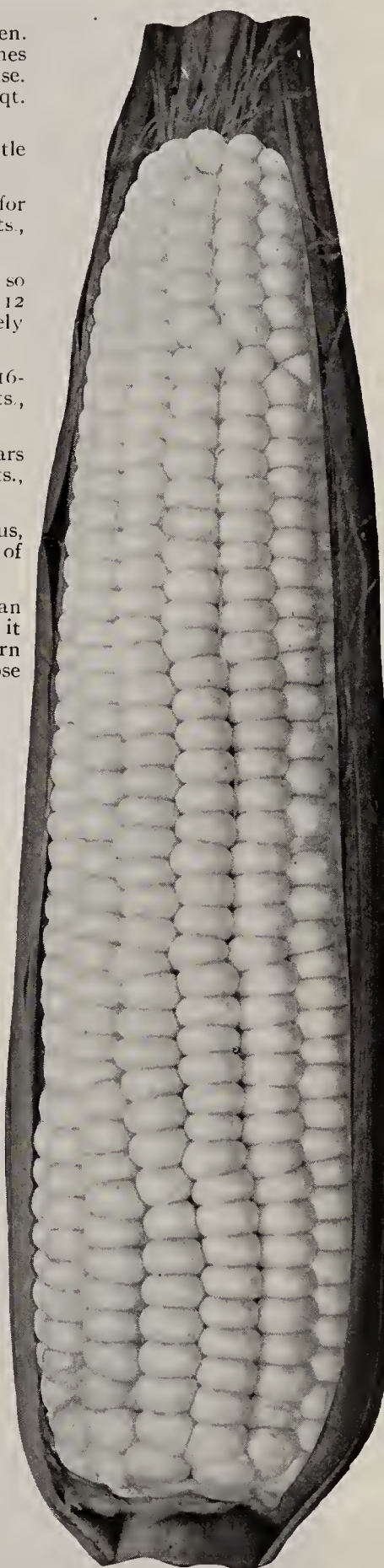
EXTRA-EARLY ADAMS. Not a true Sweet Corn but extremely hardy and early. It thrives in weather too cold and wet for other varieties, so may be planted earlier and grown in climates where true Sweet Corn does not mature. Often planted for first market. ½pt. 20 cts., pt. 30 cts., qt. 50 cts., pk. \$2.25, bus. \$7.

POP-CORN

WHITE RICE. The most popular sort for general use. Productive; popping quality excellent. Prices shelled, lb. 15 cts., 2 lbs. 25 cts.



Scott's Early Perfection

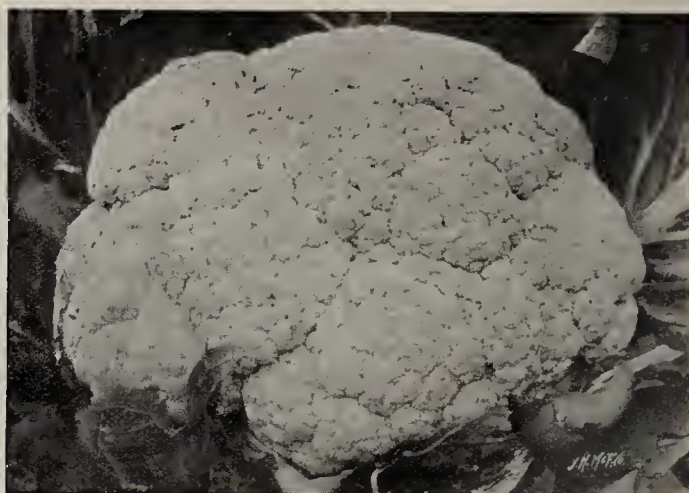
Late Mammoth
Large ears, very sweet and tender

CAULIFLOWER

Rich soil, plenty of moisture, and cool weather at the time of heading are required to grow good Cauliflower. In this part of the country it is advisable to time the sowing so that the plants will mature either before the hot, dry days of midsummer or in the fall. Sow the seed and treat the young plants exactly as you would cabbage, starting the spring crop in flats indoors or in the hotbed early in February and transplanting to the garden in May after danger from frost is past. Sow for fall crop in coldframe or seed-bed in May and transplant in July. When you set the plants out, space them about $1\frac{1}{2}$ feet apart in rows 2 feet apart, digging in plenty of manure if it is available. When the plants show signs of heading, water them freely. Finally, when the heads are about 2 inches in diameter, tie the outer leaves loosely together over the top with a soft twine, to protect them from the sun and blanch them white.

An ounce of seed will produce about 2,000 plants

SELECT EARLY SNOWBALL. Extra-early and generally considered to be one of the surest headers. It produces deep, solid heads of medium size, pure white, and of fine quality. Being compact in growth, with small outer leaves, the plants can be set close together. Forces easily and is often grown in greenhouse or frames. Snowball is the most popular Cauliflower with the commercial growers and is for either early or late crop in the home-garden. Pkt. 40 cts., $\frac{1}{4}$ oz. 75 cts., oz. \$2.50, $\frac{1}{4}$ lb. \$8, lb. \$30.



Select Early Snowball Cauliflower

DANISH GIANT, or Dry Weather. A little later than Snowball and the plants are larger. Preferred in some sections because it will grow and head during dry weather. Pkt. 40 cts., $\frac{1}{4}$ oz. 75 cts., oz. \$2.50, $\frac{1}{4}$ lb. \$8, lb. \$30.

CUCUMBERS

A dozen or so good, strong plants on well-dug, moderately rich soil will produce all of the pickles and slicing Cucumbers the average family will want. For an extra-early crop, start indoors or in a frame about April 1, sowing the seed in paper pots or dirt-bands or on the bottom of inverted sods, and transplant to the garden the latter part of May, moving sod and all in order to disturb the roots as little as possible. Sow the main crop directly in the garden late in May, and, for a continuous supply, make additional sowings every two weeks up to the middle or latter part of July. For a special crop of pickles, sow seed about July 1. Before setting out the plants or sowing seed in the garden, prepare hills 4 to 6 feet apart, digging up the soil to a depth of a foot or more and mixing in plenty of manure or compost. Cucumber roots grow deep and are not much benefited by surface fertilizing. If the soil is stiff and heavy it will be improved by the addition of sand as well as manure. Leave the soil in the hills loose and a little higher than the general level of the garden. Sow eight to ten seeds in each hill and when the plants come up, thin out all but the strongest three or four. Do not disturb the vines after they have started to spread. Pick the fruits as fast as they become ready for use in order to keep the vines bearing for a long period. If the striped beetles interfere with the development of the young plants, spray them with Pyrox or dust with Dutox. See insecticide pages.

An ounce of seed will plant about fifty hills; 2 pounds of seed will be required for an acre

DAVIS PERFECT. One of the best all-round Cucumbers in cultivation, for many years a favorite with home and market-gardeners alike. It is a dependable producer of very long, slender fruits which are rich dark green color and of finest quality. It is a good shipper and holds its deep green color for a long time. Well adapted for greenhouse culture; medium early. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 45 cts., lb. \$1.10.

IMPROVED EARLY WHITE SPINE. Extra early and prolific. Produces medium-sized, light green fruits of fine quality for slicing. Good for pickles also, and a popular sort for the home-garden. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 45 cts., lb. \$1.10.

KIRBY STAYGREEN. The earliest White Spine variety. Handsome fruits 7 to 8 inches long, of a beautiful dark green color. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 45 cts., lb. \$1.10.

BLACK DIAMOND.

The earliest White Spine Cucumber. Fruits dark green, 7 to 8 inches long, perfectly smooth, of handsome appearance. Excellent for both small and large growers. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 45 cts., lb. \$1.10.

HEINZ PICKLE.

A dependable plant that bears excellent crops of well-formed fruits when other varieties fail. The Cucumbers are blunt at both ends, deep russet-brown, and get large when mature. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 45 cts., lb. \$1.10.



Improved Early White Spine Cucumbers

All seeds postpaid at prices quoted, except as noted under "Parcel-Post Shipments" on inside front cover page

CUCUMBERS, continued

EARLY FORTUNE. A highly bred variety of the White Spine type. The vines are vigorous, producing big crops of handsome, long, slender fruits, deep green in color and exceedingly uniform in size and shape, with crisp, firm flesh and few seeds. Early, fine for slicing and one of the best for market. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 45 cts., lb. \$1.10.

EXTRA-LONG, or Evergreen White Spine. A selection from the standard White Spine type, producing fruits 10 to 12 inches long, dark green in color, smooth, and of splendid quality for slicing. Good for late crop and for greenhouse forcing. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 45 cts., lb. \$1.10.

BENNETT'S WHITE SPINE, IMPROVED. A medium-early, very productive variety which bears handsome, dark green fruits, very uniform in shape and size, about 8 inches long, thick through and blunt ended. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 45 cts., lb. \$1.10.

COOL AND CRISP. An early strain of the White Spine type. Fruits about 8 inches long, thick at the middle but tapering off at the ends; light green in color; quality good. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 45 cts., lb. \$1.

KLONDIKE. A medium-early strain of White Spine Cucumber, notable chiefly for its unusually dark green color which it holds for a long time even under the hottest sun. Fruits of good size and shape. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 45 cts., lb. \$1.10.

FORDHOOK FAMOUS. An exceptionally vigorous sort, bearing for a long season. The fruits are of giant size, often 15 inches long, thick through and slightly tapered at the ends, dark green in color and with crisp, solid flesh and few seeds. An ideal home-garden salad Cucumber. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 45 cts., lb. \$1.10.

CLARK'S SPECIAL. A very attractive, dark green Cucumber, uniform in length (8 to 10 inches), and smooth in appearance, having very few white spines. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 45 cts., lb. \$1.10.

LONG GREEN TURKEY. One of the best for pickles and useful for slicing as well. Late but very productive. The fruits when full grown are 12 to 14 inches long, straight and slender, slightly warted, dark green with crisp white flesh. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 45 cts., lb. \$1.10.



Davis Perfect Cucumbers. See page 12

EXTRA-LONG JERSEY PICKLING. Extensively grown for large pickles. The fruits are slender and tapering, growing 6 inches long, medium green in color. Extremely prolific. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 45 cts., lb. \$1.

GREEN PROLIFIC, or Boston Pickling. For small pickles. Produces short, thick, bright green fruits, smooth and symmetrical. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 45 cts., lb. \$1.

EVERBEARING. Quite similar to Early Frame, but later, more prolific, and bears for a longer season. Largely grown for pickles. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 45 cts., lb. \$1.10.

LONGFELLOW. A very desirable late variety suitable for home-gardens or market-gardeners. Fruits 12 to 15 inches long, dark green, uniform, straight, and attractive, holds color and crispness well after picking. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 55 cts., lb. \$1.50.

JAPANESE CLIMBING. A good Cucumber for the small garden as the vines can be trained on fence or trellis; in fact, it requires some sort of support. Fruits long and thick, crisp, tender and of fine quality. If kept picked, the vines will bear freely all season. Pkt. 10 cts., oz. 20c., $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

WEST INDIA GHERKIN, or Bur. Used for pickles. The vines are luxuriant, bearing quantities of small, nearly round fruits, light green and covered with spines. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 60 cts., lb. \$2.

CHICORY



Witloof Chicory

The large-rooted variety is grown for its roots, which may be cooked and served like turnips and they are sometimes dried and used to adulterate coffee. The Witloof variety is highly esteemed as a winter salad, for which purpose the plants are taken up in the fall, cut back nearly to the top of the root, and then covered with soil in a box or trench in a warm cellar. The new leaves, which grow from the old roots in about a month's time, are nearly white, crisp, and of a fine, piquant flavor. Sow Chicory seed in April or May, in shallow drills, and thin the plants to stand 4 to 6 inches apart.

An ounce will sow about 100 feet of drill

LARGE-ROOTED. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 45 cts., lb. \$1.35.

WITLOOF. Sometimes called French Endive. Pkt. 10c., oz. 20c., $\frac{1}{4}$ lb. 45 cts., lb. \$1.35.

COLLARDS

GEORGIA, or Southern. Largely grown for "greens" in the southern states. Produces a large cluster of tender leaves at the top of its long stem. Sow late in the spring and give the plants plenty of room to develop. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 40 cts., lb. \$1.25.

CORN SALAD

A hardy, quick-growing plant, popular as a substitute for lettuce in late fall and early winter. Sow the seed early in the fall in shallow drills, and give plenty of water. Late plants, covered with a light mulch of straw or leaves, will be suitable for use in early spring. *An ounce of seed sows about 100 feet of drill.*

LARGE-SEEDED. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 40 cts., lb. \$1.25.

CRESS (For peppery salads and garnishes)

FINE-CURLED PEPPER GRASS. Sow the seed any time from early spring on. It need not be grown in rows and requires no thinning. The leaves can be cut several times before the plants begin to form seed. Make sowings every week or ten days, a small patch at a time, for a continuous supply. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 25 cts., lb. 75 cts.

WATER CRESS. (True.) Grows in damp places. Sow the seed in shallow water along the bank of a stream. No further care is required after sowing. Pkt. 15 cts., oz. 60 cts., $\frac{1}{4}$ lb. \$1.75, lb. \$6.

DANDELION

The cultivated form is much larger and heavier than the common wild Dandelion. If the leaves are tied together, the center of the plant will blanch as white and clear as endive. Sow the seed early in shallow drills, in rich soil, and thin the plants to stand about 1 foot apart. Cultivate frequently and keep out weeds. *An ounce of seed will sow about 100 feet of drill.*

IMPROVED FRENCH. Pkt. 20c., oz. 75c., $\frac{1}{4}$ lb. \$2.25, lb. \$8.

CELERY

Celery is an aristocrat among the garden vegetables—one of the crops the real gardener boasts about. Yet it is by no means so hard to grow as many people think. And home-grown Celery is certainly worth a lot of trouble. In the first place, Celery wants plenty of fertilizer—enrich the spot where you are going to grow it with manure, humus, or rich compost, or if you lack these, with a commercial fertilizer high in nitrogen. On heavy clays, manure or humus is particularly needful. Celery seed is rather slow and irregular in sprouting. For early crops sow indoors or in a hotbed about March 1, barely covering the seed with soil. When the seedlings are 2 to 3 inches high, thin them out or transplant them $1\frac{1}{2}$ to 2 inches apart. "Harden" them by exposing to the air more and more as the season progresses and by the end of May they should be ready to go out in the garden. For winter Celery, sow seed in a coldframe or sheltered spot in the garden about mid-April and reset in the trenches about July 1. It is a good plan to cut off the tops of the plants when they are 4 or 5 inches high to make them more stocky.

When ready to transplant to the garden, dig the soil deeply, pulverize it thoroughly, and then make trenches about 6 inches deep and 6 inches wide at the bottom, spacing them 3 to 5 feet apart. Set the plants 6 to 8 inches apart in the bottom of the trenches, firming the soil about them. Do not work around the plants or permit dirt to get on the leaves when they are wet. Commencing when the plants are about half-grown, fill in the trenches and pull dirt up around them gradually, until finally all but the top leaves are covered, but be careful not to let dirt get into the heart. This process not only blanches the stalks and heart but brings out the rich Celery flavor. The same result may be secured by the use of paper Celery bleachers or by placing boards, 10 to 12 inches wide, against the plants on either side. For winter use store in the cellar or leave banked up in the trenches, cover with straw or loose litter to prevent freezing and with boards on top to keep out rain.

An ounce of seed will produce 3,000 plants; one-half pound is required for an acre

EASY BLANCHING. An ideal Celery for the home-garden and a leading variety for market, combining hardiness, early maturity, and good keeping quality with ease of blanching and fine flavor. The stalks are of medium height, thick through, and brittle; the heart is heavy, blanching quickly to a clear light yellow. Less liable to blight than other sorts, and good for both early and late crop. Pkt. 10 cts., oz. 35 cts., $\frac{1}{4}$ lb. \$1, lb. \$3.

GOLDEN SELF-BLANCHING. One of the finest early Celeries in cultivation; a favorite for early market. It is rather low and compact in growth, with thick, round stalks and heavy heart, blanching easily to a rich golden yellow. In flavor and quality it is unsurpassed. Our stock is from a superior strain of French-grown seed. Pkt. 10 cts., oz. 50 cts., $\frac{1}{4}$ lb. \$1.50, lb. \$5.

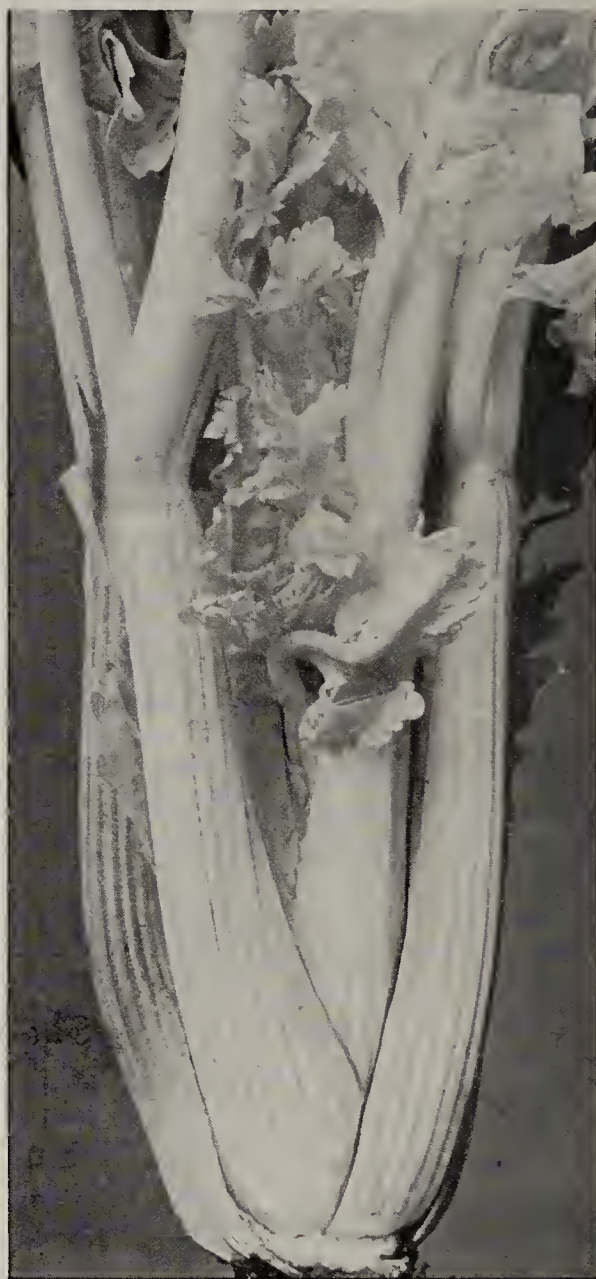
GOLDEN PLUME or WONDERFUL. A new Celery, resembling Golden Self-blanching in crispness and flavor, but much larger and ranker in growth, blanches quicker and matures earlier. It is also more blight-resistant than Golden Self-blanching. Pkt. 15 cts., oz. 60 cts., $\frac{1}{4}$ lb. \$1.75, lb. \$6.

WHITE PLUME. A very early, easily grown variety with tall, handsome stalks which blanch quickly to a silvery white. A favorite. Pkt. 10 cts., oz. 35 cts., $\frac{1}{4}$ lb. \$1, lb. \$3.

GOLDEN PHENOMENAL. A new variety introduced recently and very highly recommended by Celery growers. The general characteristics are



Celeriac



Golden Plume or Wonderful Celery

those of Golden Plume, but it is decidedly taller, and the stalks are much longer to the joint. They usually grow 27 to 28 inches over all, and from 8 to 9 inches to the joint. The season for planting and maturity is the same as Golden Plume. Plants are heavy, compact, and full-hearted. The stems are broad and thick, brittle and free from stringy fibers, of fine flavor, and of excellent quality all through. Pkt. 15 cts., oz. 60 cts., $\frac{1}{4}$ lb. \$1.75, lb. \$6.

GIANT PASCAL. A fine, late Celery with broad, thick, heavy stalks of superb nutty flavor; blanches yellowish white. A good winter keeper, retaining its flavor and crispness in storage. Pkt. 10 cts., oz. 35 cts., $\frac{1}{4}$ lb. \$1, lb. \$3.

FORDHOOK. A distinct variety of remarkably fine quality. Stalks smooth, entirely free from stringy fibers, and $1\frac{1}{2}$ inches through when cut. Blanching pure white but heart has a tinge of light, buttery yellow. Unsurpassed in its crisp, nutty flavor. Pkt. 10 cts., oz. 35 cts., $\frac{1}{4}$ lb. \$1, lb. \$3.

WINTER QUEEN. Another late sort of strong, compact growth; solid and excels in keeping quality. Medium in height with thick, brittle stalks. Pkt. 10 cts., oz. 35 cts., $\frac{1}{4}$ lb. \$1, lb. \$3.

CELERIAC or TURNIP-ROOTED CELERY

The roots—not the stalks—are the edible portion of this plant. They are used for flavoring soups and in stews, in place of Celery or celery seed, and are also cooked or used as a salad. Grown like Celery but does not require blanching.

LARGE PRAGUE. A productive variety with large, round, smooth roots, free from side shoots. Pkt. 10 cts., oz. 35 cts., $\frac{1}{4}$ lb. \$1, lb. \$3.



Black Beauty Eggplant

EGGPLANT *An ounce of seed will produce about 1,000 plants*

Eggplant is a warmth-loving vegetable, growing best in a light, mellow, well-enriched soil. Since it requires a long growing season and plenty of heat at the time the fruits are developing, it is necessary to start the seed in March, in hotbeds or boxes indoors. Push the seedlings along with plenty of light, heat, and moisture, and when they are about 3 inches high, transplant them to 3- or 4-inch paper pots or dirt-bands. Early in May commence to "harden" the plants gradually, by exposing them to the air on warm days, but protect them carefully from chills and drafts at all times. Set them out in the garden about June 1, spacing them 2 to 2½ feet apart each way. Disturb the roots as little as possible in transplanting, and water freely.

NEW YORK IMPROVED SPINELESS. A very productive sort, bearing large, smooth, dark purple fruits of good size and quality, six to eight fruits to the plant. Pkt. 10 cts. oz. 50 cts., ¼lb. \$1.50, lb. \$5.

BLACK BEAUTY. A favorite in home-gardens; a week to ten days earlier than the preceding. Fruits are of enormous size, smooth, purplish black in color and of fine quality. Pkt. 10 cts., oz. 50 cts., ¼lb. \$1.50, lb. \$5.

ENDIVE *An ounce of seed will sow 150 feet of row; 3 pounds will sow an acre*

An appetizing and healthful salad which is grown principally for fall and early winter use, as the plants are hardy and develop perfectly in cool weather. Sow the seed any time from early April to the end of July, the best results usually being obtained from late June or early July sowings. Plant in shallow drills about 15 inches apart and thin the

plants to stand 10 to 12 inches apart in the rows. When full grown, tie the tips of the outer leaves together over the center of the plant (when the leaves are dry), to blanch the heart, which will take about a week's time.

GREEN CURLED. The hardiest and most vigorous kind. The plants are large and handsome, with finely cut and fringed, dark green leaves. The heart blanches easily to clear white. Quality fine. Pkt. 10 cts., oz. 20 cts., ¼lb. 50 cts., lb. \$1.50.

WHITE CURLED. Foliage is a little finer than the Green Curled and the inner leaves become creamy white without blanching. Pkt. 10 cts., oz. 20 cts., ¼lb. 50 cts., lb. \$1.50.

BROAD-LEAVED (ESCAROLLE). The leaves are broad and quite thick and heavy, slightly twisted and scalloped. Medium green in color, blanching readily, and of good quality. Used as a winter salad and also cooked like spinach. Pkt. 10 cts., oz. 20 cts., ¼lb. 50 cts., lb. \$1.50.

BATAVIAN FULLHEART. An improved strain of Broad-leaved, with larger leaf, broader, thicker head at eating-stage, and earlier in maturity. Good quality and very attractive. Pkt. 10c., oz. 20c., ¼lb. 50c., lb. \$1.50.

LARGE CURLED PANCALIER. A vigorous grower with thick curled leaves and red ribs. Pkt. 10 cts., oz. 20 cts., ¼lb. 50 cts., lb. \$1.50.



Batavian Fullheart Endive

KALE (Borecole)

Makes delicious "greens" for fall and early spring use. For the fall crop, sow seed in May in shallow drills and thin or transplant to stand about 2 feet apart each way. Cultivate like cabbage. Light frosts will not injure Kale but will improve its flavor.

An ounce will sow about 300 feet of drill; 4 pounds will sow an acre

DWARF CURLED SCOTCH. Extremely hardy and fine for early winter use. Grows 15 to 18 inches high and produces a heavy crop of beautifully curled, bright green leaves, tender and of fine flavor. Pkt. 10 cts., oz. 20 cts., ¼lb. 50 cts., lb. \$1.25.

TALL CURLED SCOTCH. Like the dwarf form but grows about 2½ feet high. Pkt. 10 cts., oz. 20 cts., ¼lb. 50 cts., lb. \$1.25.

MOSS CURLED. A more compact, curlier variety of Scotch Kale, making a handsome appearance in market and of high culinary quality. We recommend it. Pkt. 10 cts., oz. 20 cts., ¼lb. 50 cts., lb. \$1.25.

DWARF GERMAN. Low and compact in growth, with finely curled, yellowish green leaves. Nice for garnishing. Pkt. 10 cts., oz. 15 cts., ¼lb. 35 cts., lb. 90 cts.

KOHLRABI

Sometimes called Turnip-Rooted Cabbage. Sow the seed in shallow drills in April, or for extra-early crop start in the hotbed in March. Thin or transplant the plants about 6 inches apart. Kohlrabi grows rapidly and should be used when about half-grown, 2 to 2½ inches in diameter. For a continuous supply make sowings every ten days up to the middle of July.

An ounce of seed will sow about 250 feet of drill

EARLY WHITE VIENNA. The quickest growing and most popular kind for table use. Leaves few and small; bulbs of medium size with white skin and flesh, tender and of delicate flavor. Pkt. 10 cts., oz. 35 cts., ¼lb. 85 cts., lb. \$2.50.

EARLY LARGE PURPLE. A little later and larger than the White Vienna, and a reliable sort. Skin purple; flesh white. Pkt. 10c., oz. 35c., ¼lb. 85c., lb. \$2.50.

LARGE GREEN. Generally used for stock-feeding. Produces large bulbs with greenish white skin; rather tough when full grown but suitable for table use when small. Pkt. 10 cts., oz. 30 cts., ¼lb. 75 cts., lb. \$2.



Early White Vienna Kohlrabi

LETTUCE

By starting seed for the first crop in the hotbed or in flats in the house in February or early March, and by carefully choosing varieties which will furnish a succession of crops in the garden, one may have fresh Lettuce for the table from May to November. Make the first sowing outdoors as soon as the ground can be put in shape, making the seed-bed as fine and mellow as possible. Scatter the seed in shallow furrows at least 15 inches apart, and cover lightly. As soon as the plants are big enough, thin them out to stand 3 to 4 inches apart. Then, when they begin to touch each other in the row, use alternate plants, leaving 8 to 12 inches, depending on variety, for the remainder to develop. Cultivate constantly. Remember that prompt thinning to provide room, and frequent cultivation are the two great essentials in growing good Lettuce. An occasional sprinkling of nitrate of soda will pay in producing earlier and better crops.

The quickest and easiest Lettuces to grow are the non-heading Loose-leaf or cutting varieties. They are generally preferred for the first sowing outdoors. The Butterhead sorts are second in earliness but first in quality. They do not thrive in hot, dry weather. Use Butterhead varieties for your indoor sowing and for early spring sowing outdoors to succeed the quicker maturing Loose-leaf sorts. They may also be sown in August or early September to mature in the fall. The Crisphead Lettuces require a longer season to mature but are valuable for their comparative resistance to hot weather. Sow these to follow the Butterheads. The Cos or Romaine Lettuces are slow growers but are particularly resistant to heat and drought.

GRAND RAPIDS. An extremely early Loose-leaf variety, requiring cool weather for its proper development. Grown in greenhouses for winter market. Also good for first spring crop in the garden. The plants are large and handsome, with bright green, curled and crinkled leaves. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 50 cts., lb. \$1.25.

EARLY CURLED SIMPSON. An early, medium-large Loose-leaf Lettuce with yellowish green, crumpled and frilled leaves of excellent quality. A splendid early garden Lettuce. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 50c., lb. \$1.25.

BLACK-SEEDED SIMPSON. One of the most reliable and productive of the Loose-leaf sorts. The plants are large, with broad, beautifully crumpled and frilled leaves, light green in color and of good quality. Stands more heat than others of its class and is, consequently, desirable for late sowings. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 50 cts., lb. \$1.25.



New York or Wonderful Lettuce



Big Boston Lettuce. See page 17



Grand Rapids Forcing Lettuce

THE MORSE. A Loose-leaf type but compact in growth, making a sort of loose head, with outer leaves light green and heart blanching light yellow. The plants are large and vigorous. Sometimes used for forcing and good for early crop outdoors. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

IMPROVED HANSON. Crisphead type, although it does not make a solid head under ordinary conditions. The plants are of good size; outer leaves medium green, somewhat crinkled; inner leaves blanching white. It grows well in hot weather and remains in good condition for a long time before going to seed. A dependable summer Lettuce. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

GOLDEN CURLED. A very handsome, loose-heading Lettuce with greenish yellow, crinkled and frilled leaves.

Medium size; crisp and tender. Stands warm weather well and is slow to shoot to seed. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

BROWN CHARTIERS. Similar to the preceding but the leaves are tinged with brown. Neither Chartiers nor Golden Curled is recommended for forcing. Pkt. 10c., oz. 20c., $\frac{1}{4}$ lb. 50c., lb. \$1.50.

CRISP-AS-ICE. A popular Lettuce of the Crisphead type which makes a solid head of medium size. Being unusually hardy, it is desirable for fall sowing. The outer leaves are dark bronzy green, crumpled and heavy in texture; inner leaves creamy yellow, crisp and sweet. Pkt. 10 cts., oz. 35 cts., $\frac{1}{4}$ lb. 90 cts., lb. \$2.50.

WHITE PARIS COS, or Romaine. Distinguished by its tall, upright growth, with long, narrow leaves. The heads are compact and can be blanched to clear white by tying the outer leaves together at the top. Cos Lettuce can be grown in the hottest weather and, when properly blanched, it is crisp, tender, and of excellent flavor. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

ICEBERG. A fine variety for the home-garden. Crisphead type, making a very large, solid head even in warm weather. Outer leaves light green, tinged with brown at the edges; inner leaves white, crisp, firm and sweet. Pkt. 10c., oz. 20c., $\frac{1}{4}$ lb. 50c., lb. \$1.50.

NEW YORK, or Wonderful. The most largely grown of the Crisphead Lettuces. It grows slowly but makes a fine heavy head and remains in prime condition for several weeks. The outer leaves are dark green; the inner blanch to creamy white. Known on the markets as "California Ice Lettuce." Pkt. 10c., oz. 30c., $\frac{1}{4}$ lb. 90c., lb. \$2.50.

Lettuce continued on next page

LETTUCE, continued

MAY KING. An early Butterhead Lettuce of superb quality, and an ideal sort for early spring planting. If grown in cool weather and given ample room and cultivation, it will make very solid heads of medium size, with light green outer leaves and rich golden yellow hearts. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

BIG BOSTON. Where conditions are favorable, Big Boston is a most dependable producer of very large, compact heads of rich buttery quality. It is a favorite with market-gardeners, particularly in the South, but will not ordinarily "head up" for the home-gardener unless it is started indoors or sown very early so as to mature before warm weather. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

BLACK-SEEDED BIG BOSTON. Similar to the original Big Boston which is white-seeded, but a little coarser in growth and stands longer before going to seed. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

WHITE BOSTON. Similar to Big Boston but with slightly lighter green leaves and free from the brownish tint on the outer leaves. Head of medium size and compact, with creamy yellow heart. Excellent quality. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

LARGE SUMMER CABBAGE. A better warm-weather Lettuce than other Butterhead sorts. The heads are large, quite solid, medium green in color, blanching to creamy yellow in the heart, and of fine quality. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

LEEK

This relative of the Onion is grown for its thick leaf-stalks, which resemble a giant young onion. Its pungent flavor is much appreciated by many people, and it is widely used for flavoring soups and stews. A light, moderately rich soil is required for best results. Sow the seed in shallow drills early in the spring and when the plants are about 5 inches high, transplant them 6 to 8 inches apart in rows 15 inches apart, and cultivate frequently. At the time of transplanting it is a good plan to cut back the plants about a third of their height. The stalks are best when blanched by drawing earth up around them.

An ounce of seed will sow 150 feet of row; 4 pounds will produce sufficient plants for an acre

LARGE LONDON FLAG. The hardiest and most generally cultivated variety. Broad stalks of strong flavor. Pkt. 10 cts., oz. 30 cts., $\frac{1}{4}$ lb. 90 cts., lb. \$2.50.

MUSSELBURG. Grows larger and is milder in flavor than the preceding. Pkt. 10 cts., oz. 30 cts., $\frac{1}{4}$ lb. 90 cts., lb. \$2.50.

MUSKMELON

*An ounce of seed will plant about 50 hills;
2 to 3 pounds will plant an acre*

Melons grow best in a light, warm, well-enriched soil. Since they cannot be sown outdoors until warm weather, and require a long growing season, it is a good plan, in this part of the country, to start the seed in a hotbed or box indoors, using inverted sods or dirt-bands, as recommended for early cucumbers. Plant them in the garden, in hills 5 to 6 feet apart, digging the soil to a depth of a foot and mixing in plenty of manure or fertilizer with the bottom soil. In sections where the young plants are troubled with insect pests, it will be necessary to sow an excessive number of seeds with the idea of leaving enough plants to produce a crop after the bugs have done their worst. No more than three or four strong plants should be left in each hill. Hoe frequently at first, taking care not to injure the roots which run close to the surface, but do not disturb after the vines begin to spread.

EXTRA-EARLY HACKENSACK. A large, round melon, slightly flattened at the ends. The skin is ribbed and netted; the flesh is thick, light green in color, and of good quality. Matures earlier than the old type. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

HACKENSACK, or Turk's Cap. Larger and later than the preceding. Productive. An old favorite with market-gardeners. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

OSAGE, or Miller's Cream. A popular market melon, unusually productive and bears for a long season; does well on soils too heavy for other varieties. The fruits are large, slightly elongated, with lightly netted dark green skin and thick, firm, orange flesh of fine flavor. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

EMERALD GEM. An early, prolific melon. The fruits are small, decidedly flattened and deeply ribbed; the skin is dark green and the flesh is unusually deep and solid, bright orange in color clear to the rind, and of remarkably fine quality. Not a good shipping melon as it remains in good condition but a short time, but a great favorite for home-gardens on light soil. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

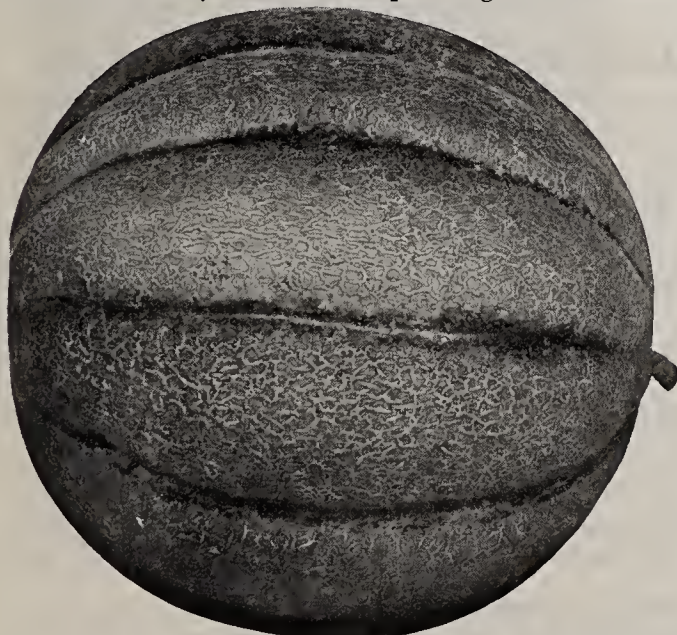
TIP-TOP. Probably the most dependable melon for this region. Medium early and productive, bearing large, round, ribbed and netted fruits with thick, sweet orange, flesh. A good market melon and does well on a variety of soils. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

ROCKY FORD. One of the finest quality melons in cultivation. The fruits are medium small, oval in shape, slightly ribbed and covered with a coarse, gray netting. Flesh green and remarkably sweet. Productive but requires a long season. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

HONEY DEW. This melon, recently introduced to American gardens, has come into great favor on account of its extraordinary sweetness. The fruits are very large, with thin, hard, smooth, pale green rind and thick green flesh which remains firm and crisp for a long time. Requires a long growing season. Pkt. 10 cts., oz. 25 cts., $\frac{1}{4}$ lb. 75 cts., lb. \$2.



Large London Flag Leek



Tip-top Muskmelon

DUST MELONS WITH HAMMOND'S SLUG SHOT. See page 77

WATERMELON

If you have a sunny, sheltered spot in your garden and are willing to take pains to give the plants a good start, you can grow the finest of Watermelons, even in this northern latitude. In general, Watermelons require the same treatment as muskmelons. Start the plants in a hotbed, if possible, to save time, for they require a long growing season. It is not safe to sow seed outdoors until the last of May. Prepare the hills carefully, spacing them 8 to 10 feet apart and digging them deep, mixing in each a couple of shovelfuls of manure or, if manure is not available, a little commercial fertilizer. Humus material of some kind will have to be added if the soil is heavy. Provide in the sowing for a surplus of plants since some of them are pretty sure to succumb to the attacks of insects. To protect the seedlings as much as possible, sprinkle them with arsenate of lead powder or tobacco dust. A top-dressing of manure will keep the soil in the hill warm and moist; water freely in dry spells. When the vines begin to run, pull out all but three or four of the strongest plants.

An ounce will plant about 20 hills; 4 pounds will plant an acre

TOM WATSON. This is the most widely grown variety, the standard market melon of the South. The vines are vigorous, bearing fruits 24 inches long and about 12 inches in diameter, with a thin, tough, mottled green rind and rich red flesh of good quality. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

KLECKLEY SWEETS. Leading all other Watermelons in sweetness, this is the ideal variety for home-gardens and local markets. The fruits grow about 20 inches long and 10 inches in diameter, with thin green rind and bright scarlet flesh which is deliciously crisp and juicy without a trace of fiber or stringiness. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

SWEETHEART. Earlier than the above and, for that reason, more suitable for northern gardens. Large, heavy fruits, more nearly round than the preceding varieties, with a thick, mottled light and dark green rind and firm red flesh. Ships and keeps well; quality good. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.



Sweetheart Watermelon

CITRON

A form of melon used only for preserving as the flesh is not edible when raw. Citrons are grown in the same way as watermelons; they are prolific and not so particular as to soil. Home-preserved Citron is much superior to that handled in the stores in a dried or candied form.

RED-SEEDED. Flesh firm, with comparatively few seeds. Fruits round. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

GREEN-SEEDED. Also called "Colorado Preserving." Fruits large and oblong. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

HORSE-RADISH

MALINER KREN. The largest and most vigorous variety. Plant in early spring in rich, moist soil. Will produce a good crop in one season. Roots, 45c. per doz. (postpaid 55c.), \$2.25 per 100 (postpaid \$2.50), \$15 per 1,000.



Mushrooms

MUSHROOMS

Anyone who has a cellar or dark room where the temperature can be kept at from 50 to 60 degrees, can grow Mushrooms of surpassing tenderness and flavor. We furnish special printed directions free with each order, or for 25 cents we will send, postpaid, an illustrated booklet on Mushroom culture which gives the latest improved methods of growing as well as full instructions for preparing for market and recipes for cooking.

SPORE-CULTURE MUSHROOM SPAWN, NORTHERN-GROWN. Pure and vigorous. In the form of compressed bricks, each of which will plant about 8 square feet of bed. Brick 30 cts., 10 bricks \$2.50, 50 bricks \$11, 100 bricks \$20. If wanted by mail, add 10 cts. per brick to cover postage; 3 bricks 15 cts., 5 bricks 20 cts.

MUSTARD

The young, tender leaves make piquant salads and are delicious as well as healthful as boiled "greens." Make frequent sowings during the spring months, commencing as soon as the ground can be prepared, in shallow drills 12 to 15 inches apart. Thin out to 10 inches between plants. Mustard can also be forced in frames or in the greenhouse during winter.

An ounce of seed will sow about 75 feet of drill

SOUTHERN GIANT CURLED. The plants grow 2 to 3 feet high, producing quantities of broad, succulent leaves which are handsomely curled and fringed. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 25 cts., lb. 75 cts.

WHITE CHINESE. An improved form of the common White Mustard. Leaves broad and smooth, sweet and pungent in flavor. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 25 cts., lb. 75 cts.

FORDHOOK FANCY. A dark green variety of robust growth, more curled on the edges than any other sort. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 25 cts., lb. 75 cts.



Mustard

ONION

The average home-gardener is satisfied to grow small green Onions for the table. They are easily grown from seed sown in fine, well-prepared soil early in the spring. The rows should be 12 to 15 inches apart and the seed covered with a little fine soil pressed down firmly above it. When the seedlings are 3 to 4 inches high, thin them out to stand about 2 inches apart. Cultivate frequently.

Growing Large Onions from Seed. Poor or heavy soil will not grow good crops of large Onions without the addition of considerable quantities of old rotted manure, humus, and commercial fertilizer; a rich sandy loam or muck soil gives best results. If possible sow seed in hotbeds early in February, thinning the seedlings enough to prevent crowding, and transplanting to the open ground early in May, spacing them 4 to 6 inches apart, depending on variety. If hotbeds are not available, sow the seed in the garden as early as the soil can be put in shape. Thin promptly and keep the hoe or cultivator busy early and late. Keep down the weeds by frequent hand-weeding, if necessary. When the bulbs begin to ripen or show signs of going to seed in the fall, bend over the tops but do not break them off. After digging, let the bulbs thoroughly dry in the sun before storing them away.

An ounce of seed will sow about 100 feet of row; 5 to 6 pounds will sow an acre

Yellow Globe Danvers Onion



EXTRA-EARLY RED. A flat, medium-sized Onion with purplish red skin and white flesh of good but strong flavor. The earliest of the red Onions. Pkt. 10 cts., oz. 40 cts., ¼lb. \$1.10, lb. \$3.50.

LARGE RED WETHERSFIELD. The most popular large red Onion for home-gardens and northern markets. Similar in shape and color to Extra-Early Red, but larger and about two weeks later. Productive and an excellent keeper. Pkt. 10 cts., oz. 30 cts., ¼lb. 90 cts., lb. \$2.50.

YELLOW DANVERS FLAT. Flat bulbs of good size, with thin necks, ripening down hard and keeping well. Skin is straw-yellow; flesh white, fine-grained and mild. Medium early. Pkt. 10c., oz. 30c., ¼lb. 90c., lb. \$2.50.

YELLOW GLOBE DANVERS. The standard round Onion for eastern markets and probably the most popular all-purpose variety in cultivation. Productive and medium early; bulbs large, solid, nearly globe-shaped, with yellowish brown skin and pure white flesh, crisp, sweet, and mild in flavor. An excellent keeper and a very reliable Onion for home or market use. Pkt. 10 cts., oz. 30 cts., ¼lb. 90 cts., lb. \$2.50.

PRIZETAKER. A fine selection of the giant Spanish Onion, which will, if planted early and given good cultivation, produce bulbs 4 inches or more in diameter. It makes handsome, uniform, globe-shaped bulbs with thin, pale yellow skin and mild, sweet, white flesh. Prizetaker is a splendid Onion for the home-garden and a good variety to grow for fall and early winter market. Fine for sowing in the hotbed and transplanting. Pkt. 10 cts., oz. 35 cts., ¼lb. \$1, lb. \$2.75.

YELLOW DUTCH, or Strasburg. An old standard variety. Early; me-

dium size and flat in shape; quality good. Largely sown to produce yellow sets. Pkt. 10 cts., oz. 30 cts., ¼lb. 90 cts., lb. \$2.50.

WHITE PORTUGAL, or Silverskin. A favorite, early, mild-flavored, pure white-skinned Onion, especially desirable for pickling. Full-grown bulbs are large and flat; not a good keeper but extra-fine in quality. If grown for young pickling Onions, sow the seed at the rate of 25 pounds per acre. Pkt. 10 cts., oz. 35 cts., ¼lb. \$1, lb. \$3.

SOUTHPORT WHITE GLOBE. The largest and handsomest of the white Onions, also the best keeper. The bulbs are uniformly globe-shaped with pure white skin and fine-grained, solid flesh of sweet, mild flavor. It grows quickly to the green-Onion stage and is largely sown by market-gardeners for that purpose. Productive and reliable. Pkt. 10 cts., oz. 40 cts., ¼lb. \$1, lb. \$3.

WHITE BUNCHING. A very quick-growing Onion of mild flavor, fine for early spring use. Good size; skin and flesh pure white. Pkt. 10 cts., oz. 35 cts., ¼lb. \$1, lb. \$3.

Growing Onions from Sets. By starting with sets, small green Onions can be produced very early and large Onions can be harvested about August 1. Plant sets as soon as the ground is ready; push them into the soil but do not cover them over, allowing 2 to 4 inches of space between, depending on whether small or large Onions are wanted. See page 22.



Southport White Globe Onions



Prizetaker Onion

GARDEN PEAS

INOCULATE THIS
SEED WITH
STIMUGERM

Peas can be sown very early in the spring, the hardy round-seeded varieties even as early as March 1, and, generally speaking, the earlier you start your Peas the better, for the best crops are always obtained before the onset of real hot weather. For the first sowings use the smooth or round-seeded sorts, but after the first of April change to the wrinkled kinds which, although not so hardy, are much superior in quality. Make additional sowings every two weeks up to July 1 for a continuous supply all summer, but arrange to put the May and June plantings on deep, rich soil where you can conveniently water them during dry weather.

A good way to grow Peas in the garden is to plant them in double rows 6 to 8 inches apart, with sufficient space between each pair of double rows to allow for easy cultivating and picking. In the field, Peas are grown in single rows with 3 feet or more between. The seed should be covered about 2 inches deep, or somewhat deeper in warm, dry weather.

The dwarf varieties require no support, but the tall sorts should be provided with bush or wire to support the vines. Generally speaking, the tall varieties are more productive and retain their quality longer, although there are exceptions to this rule.

A quart of seed will sow 100 feet of single row; 1 to 1½ bushels will sow an acre

HARDY ROUND-SEEDED PEAS

CARTER'S EIGHT WEEKS. The earliest and one of the hardiest Peas in cultivation, this comparatively new variety is rapidly becoming a favorite for the first spring crop. The vines are vigorous and extremely productive, growing about 16 to 18 inches high and bearing pods of very good size for so early a sort. Peas large and of fine quality when young. ½pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$3, bus. \$10.

MARKET SURPRISE. An unusually large-podded, extra-early sort, growing 2½ to 3 feet tall. It is about the same season as Alaska, being several days later than Eight Weeks, but the pods are larger and Peas of better quality. A reliable variety for both home and market-gardens. ½pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$3, bus. \$10.

ALASKA. A very productive smooth Pea, long in favor with market-gardeners and canners. About 2½ feet tall; pods rather small, ripening all at once; Peas small and of medium quality. ½pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$3, bus. \$10.

EARLY WRINKLED PEAS

PIONEER. A very productive and reliable dwarf Pea, one of the earliest of the wrinkled kinds. The vines grow about 16 inches tall, bearing very large, curved pods, medium green in color, filled with large Peas of fine quality. ½pt. 20c., pt. 35c., qt. 65c., pk. \$3, bus. \$10.

LAXTONIAN. The acknowledged leader in quality among early dwarf Peas and one of the best varieties for the home-garden. Of the same general type as Pioneer but a trifle taller and the pods and Peas are darker green. Quality of the best. Pkt. 10 cts., ½pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$3, bus. \$10.

WORLD'S RECORD. The earliest wrinkled Pea, and one of the most popular varieties for both market and home plantings in this section. It closely resembles the old standard Gradus; in fact, might be called an extra-select strain of that variety, but is a few days earlier and the pods are a shade smaller. ½pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$3, bus. \$11.

GRADUS or Extra-Early Telephone. A grand old standby, second only to World's Record in earliness and a most dependable producer under all conditions and for all purposes. Vines 3 feet high; pods about 4 inches long, broad and slightly curved, containing 7 to 9 Peas of excellent quality. ½pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$3, bus. \$11.

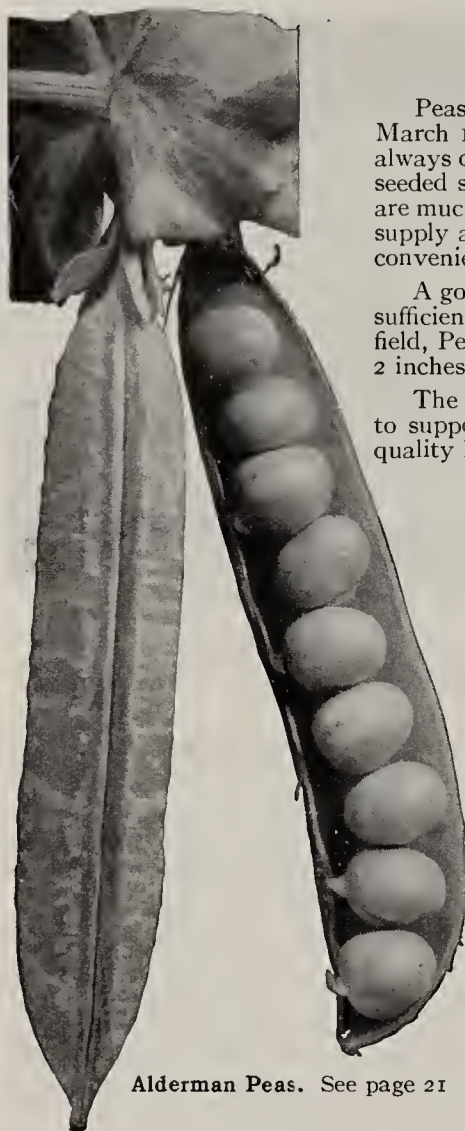
THOMAS LAXTON. As early as Gradus and grows to the same height. The pods are a little shorter and more blunt but they are always crammed full of large, tender Peas of most superb quality. Desirable for the market-garden. ½pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$3, bus. \$10.

LITTLE MARVEL. A very dwarf, large-podded variety which comes into bearing after Gradus and just before Laxtonian. The vines grow about a foot high and bear big crops of 3¼-inch pods, containing large Peas of excellent flavor. A good Pea to plant in gardens where space is limited. Pkt. 10 cts., ½pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$3, bus. \$11.

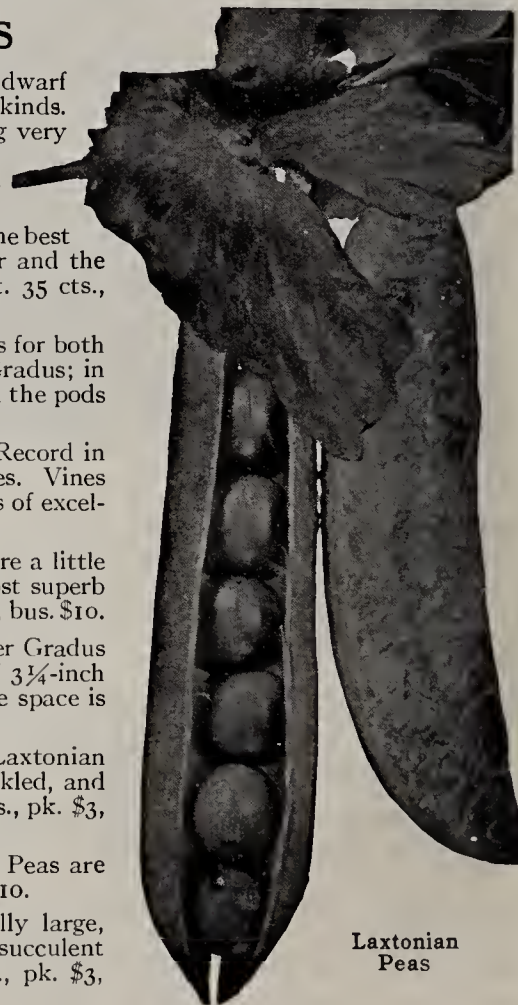
LAXTON'S PROGRESS. This new, dwarf, early sort comes in much earlier than Laxtonian or any other Pea of its class. The Peas are deep green, of excellent flavor, fully wrinkled, and average 9 to 10 to the pod. Grows 18 inches high. ½pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$3, bus. \$11.

NOTT'S EXCELSIOR. Same height and season as Little Marvel but the pods and Peas are smaller. Good quality and very prolific. ½pt. 20c., pt. 35c., qt. 65c., pk. \$3, bus. \$10.

PRESIDENT WILSON. A handsome, second-early, dwarf variety, with exceptionally large, attractive pods. Vines very dark green. Pods rich deep green, contain 8 to 9 large, succulent Peas. Excellent for home- and market-garden. ½pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$3, bus. \$11.



Alderman Peas. See page 21



Laxtonian
Peas

MIDSEASON AND LATE WRINKLED PEAS

POTLATCH. Productive main-crop Pea of special value to the home-gardener on account of its dwarf growth and extra-fine quality. Vines luxuriant, 2 feet high; pods deep green, 5 inches long and quite broad; Peas large and tender, often 10 to a pod. ½pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$3, bus. \$10.

DWARF TELEPHONE. Also known as "Daisy." A little earlier than Potlatch, growing 2½ feet tall, with 4½-inch pods, containing 7 or 8 Peas of the very best quality. ½pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$3, bus. \$10.

PRINCE EDWARD. One of the newest in this class and probably the most productive. Matures with Telephone; vines medium green, pods dark green in color. Highly recommended to market-gardeners and for late use in the home-garden. ½pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$3, bus. \$10.

IMPROVED TELEPHONE. The best strain of this well-known standard variety. The vines are vigorous, growing 4 feet high, with broad, heavy leaves and broad pods, 4½ inches long, light green in color, and well filled with 8 to 10 extra-large Peas. Bears several good pickings. Quality fine, the Peas remaining tender and sweet for a long time. ½pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$3, bus. \$10.

ALDERMAN. Perhaps the best all-round of the Telephone type. Vines strong and vigorous; leaves and pods rich dark green; productive; quality the finest; matures with Telephone. ½pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$3, bus. \$10.

MAMMOTH-PODDED SUGAR. A tall, late, prolific variety which produces big, broad pods, so tender and sweet that the whole pod can be cooked and served like snap beans. If you have not grown sugar-pod Peas, be sure to try them this year. ½pt. 25 cts., pt. 40 cts., qt. 75 cts., pk. \$4.25, bus. \$15.



Pioneer Peas. See page 20

PEPPER

An ounce of seed will produce about 1,500 plants

Peppers require a moderately rich and light soil, a long growing season, and plenty of warmth at all stages. Grow them like egg-plants, starting the seed indoors or in the hotbed in March, transplanting to pots or dirt-bands when the second or third leaf has developed, and resetting in the garden about June 1. Space the plants 2 to 2½ feet apart.

RUBY KING. An early and productive, true sweet Pepper. The fruits, when ripe, are bright red, averaging 4 inches in length and 3 inches in diameter, tapering to a blunt point. The flesh is quite thick, sweet, and always mild. A fine variety for the home-garden. Pkt. 10 cts., oz. 40 cts., ¼lb. \$1, lb. \$3.

WORLD BEATER. A fine, new selection of the Ruby Giant type. Later but larger and a little more blocky in shape than Ruby King; flesh quite thick and sweet; bright scarlet when ripe. Pkt. 10 cts., oz. 50 cts., ¼lb. \$1.25, lb. \$4.

RUBY GIANT. Thick-fleshed and, next to Chinese Giant, the largest of the sweet Peppers. Early, reliable, and fairly productive. Deep green, changing to rich red when ripe. Handsome Pepper of fine quality. Pkt. 10 cts., oz. 50 cts., ¼lb. \$1.25, lb. \$4.

SWEET SPANISH. A large, rich scarlet Pepper of exceptionally mild flavor. One of the best sorts for baking or for mangoes. Pkt. 10 cts., oz. 40 cts., ¼lb. \$1, lb. \$3.

BULL NOSE. Largely grown by market-gardeners on account of its productiveness. Fruits deep green, becoming vivid scarlet as they mature, medium in size, square and blunt-pointed. Generally considered a sweet Pepper but the flesh is often strong in flavor and sometimes quite hot. Pkt. 10 cts., oz. 50 cts., ¼lb. \$1.25, lb. \$4.

PIMIENTO. A select strain of the famous Spanish Pepper, the thickest-fleshed and choicest quality variety in cultivation. Pkt. 10 cts., oz. 50 cts., ¼lb. \$1.25, lb. \$4.

HARRIS' EARLY GIANT. Large, early variety about 4 inches long by 3 inches through. It is deep green, turning to red, and of sweet, pleasant flavor. Pkt. 10 cts., oz. 50 cts., ¼lb. \$1.25, lb. \$4.

CALIFORNIA WONDER. (New.) Has thicker, firmer, heavier flesh than any other Pepper, and a deliciously sweet spicy flavor with no bite to it. Fruits are bright green, changing to brilliant light crimson, and are ideal for stuffing because of their blocky shape. Pkt. 10 cts., oz. 60 cts., ¼lb. \$1.75, lb. \$6.

NEAPOLITAN. A solid, mild Pepper 4 inches long by 2 inches in diameter, and tapering irregularly from the shoulder. It is green when young and glossy red when ripe. Pkt. 10 cts., oz. 50 cts., ¼lb. \$1.25, lb. \$4.

CHINESE GIANT. The largest of all Peppers, the fruits often measuring 5 inches in length and diameter. Late but productive; flesh thick and very mild and sweet; deep red when ripe. Pkt. 10 cts., oz. 75 cts., ¼lb. \$2, lb. \$7.

LONG RED CAYENNE. Pods about 6 inches long, slender and pointed, bright scarlet; flesh very hot in taste and pungent in odor. Pkt. 10 cts., oz. 50c., ¼lb. \$1.25, lb. \$4.

SMALL RED CAYENNE. Bushy plants, loaded with little, slender pods, about 1½ inches long, Fiery hot. Pkt. 10 cts., oz. 50 cts., ¼lb. \$1.25, lb. \$4.

LARGE RED CHERRY. Fruits erect, round or cherry-shape and very hot. Pkt. 10 cts., oz. 50 cts., ¼lb. \$1.25, lb. \$4.

HUNGARIAN WAX. Fruits about 5 inches long and 1½ inches in diameter at stem end, tapering to a point. Waxy yellow and red when ripe. Hot. Pkt. 10 cts., oz. 75 cts., ¼lb. \$2, lb. \$7.

BULGARIAN WAX. Similar to Hungarian Wax except pods are smaller and slightly curved. Pkt. 10 cts., oz. 75 cts., ¼lb. \$2, lb. \$7.

GOLDEN QUEEN. Of all yellow-fruited Peppers, Golden Queen is the largest, most productive, and finest. The fruits are very heavy, unusually meaty, and strictly mild. The skin is a bright and attractive glossy golden yellow. The plants produce uniform handsome fruits with astonishing freedom. Pkt. 10 cts., oz. 75 cts., ¼lb. \$2, lb. \$7.



World Beater Pepper



Onion Sets

ONION SETS

We carry an extra-choice grade of Onion Sets in both white and yellow sorts. Prices quoted below are subject to change. Ask for special quotation on large quantities.

WHITE. Qt. 25 cts., pk. \$1.40, bus. \$4.50.

YELLOW. Qt. 20 cts., pk. \$1.25, bus. \$4.

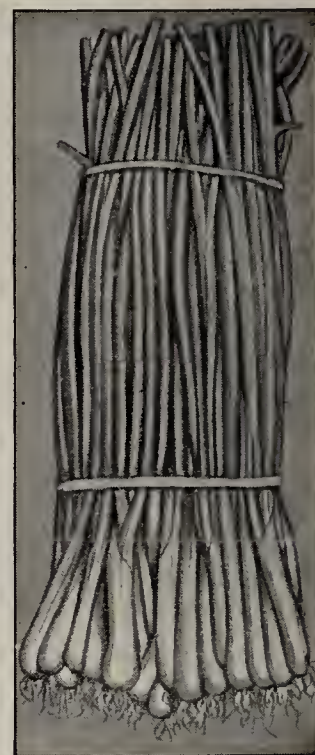
POTATO ONION SETS. Qt. 40 cts., pk. \$2.25, bus. \$7.

GARLIC SETS or BULBS. Qt. 50 cts., pk. \$3.

The above prices do not include postage. If wanted by mail, add 10 cts. for 1 qt., 12 cts. for 2 qts., 20 cts. for 1 pk.

ONION PLANTS

These young plants of the Prizetaker and White or Yellow Bermuda Onions start into growth more quickly and grow more vigorously than dormant sets, and they make very smooth, handsome Onions of uniform size and shape, good sweet flavor, and excellent keeping quality. They are cheaper than sets, quality and yield considered. Perfectly hardy and may be planted as early as the ground can be prepared. Place your order early, specifying which variety you want. Postpaid: 50 cts. per 100; \$1.60 for 500; \$3 per 1000. Special prices on larger quantities.



Onion Plants

OKRA or GUMBO

Grown for its seed-pods, which are pickled when young, before they get tough, and used for flavoring and thickening soups. Popular in the South. Sow late in May, in drills about an inch deep and 2½ feet apart and thin out to about 1 foot apart in the row. For an early crop, start seed in the hotbed late in March.

One ounce will sow about 25 feet of row; 20 pounds will sow an acre

LONG GREEN. A tall-growing variety which bears quantities of deep green pods that average 4 to 5 inches in length at the edible stage. Slow to ripen. Pkt. 10c., oz. 15c., ¼lb. 25c., lb. 75c.

DWARF PROLIFIC. Early and, as the name implies, low in growth and productive. Pods of medium size; light green. Pkt. 10 cts., oz. 15 cts., ¼lb. 25 cts., lb. 75 cts.



Long Green Okra

PARSLEY

An ounce of seed will sow 150 feet of drill; 8 pounds will sow an acre

Everyone wants a little bed of Parsley for flavoring and garnishing. Choose a rich, mellow spot and sow the seed as early in the spring as possible, in drills about a foot apart and half an inch deep. The seed is very slow to germinate, sometimes requiring six to eight weeks. Soaking it in luke-warm water for a few hours before sowing will help to hasten it. When the plants are strong enough, thin them to stand about 4 inches apart. Parsley beds may be carried over winter in a frame or by mulching with leaves or straw.

DOUBLE-CURLED. A compact-growing variety with bright deep green leaves that are beautifully curled and fringed. The most attractive Parsley for garnishing. Pkt. 10 cts., oz. 15 cts., ¼lb. 35 cts., lb. 85 cts.

CHAMPION MOSS CURLED. A hardy and vigorous sort that can be cut the year around. Leaves attractively crimped and curled. Pkt. 10 cts., oz. 15 cts., ¼lb. 35 cts., lb. 85 cts.

PLAIN or Single. The leaves are deeply cut but not curled. Much stronger in flavor than the curled sorts and, on this account, preferred for soups, etc. Pkt. 10 cts., oz. 15 cts., ¼lb. 35 cts., lb. 85 cts.

HAMBURG TURNIP-ROOTED. Grown for its roots, which resemble short, thick parsnips and are highly flavored; useful in soups and stews. Grown like carrots. The roots can be stored for winter use. Pkt. 10 cts., oz. 15 cts., ¼lb. 35 cts., lb. 85 cts.

PARSNIP

An ounce of seed will sow 150 feet of row; 8 pounds will sow an acre

A deep, fine but not necessarily rich soil is best for Parsnips. Spade it deep and pulverize it well, as early as the ground can be worked. Sow the seed in drills 1½ feet apart and half an inch deep, and when the plants are well up thin them out to stand about 6 inches apart. Cultivate frequently. The roots mature in the fall and, being perfectly hardy, may be left in the ground all winter, to be dug as needed. Their flavor is improved by freezing.

HOLLOW CROWN. A standard table variety, producing long, smooth roots with white skin and fine-grained flesh. Productive and reliable. Pkt. 10c., oz. 15c., ¼lb. 35c., lb. 85c.

GUERNSEY. Thicker at the top and not quite so long as the preceding; consequently, a better variety to grow on shallow soils. Good quality. Pkt. 10c., oz. 15c., ¼lb. 35c., lb. 85c.

MALTESE HALF-LONG. An early variety of particularly fine quality. Roots rather short and thick. Pkt. 10 cts., oz. 15 cts., ¼lb. 35 cts., lb. 85 cts.

WHITE LISBON. The largest and most handsome variety. Resembles Hollow Crown but the roots are smoother and whiter. Fine quality. Pkt. 10c., oz. 15c., ¼lb. 35c., lb. 85c.



Hollow Crown Parsnips



Mammoth Golden Cushaw Pumpkin

PUMPKIN

The seed should be sown as soon as the ground gets warm, usually during the latter part of May in this section. Pumpkins are sometimes grown in corn, but for table use it is customary to plant them in hills 6 to 8 feet apart, dropping from four to eight seeds in each hill. It is a good plan to pinch back the vines after they get 4 to 5 feet long. If you want extra-large specimen fruits, dig plenty of manure into the hill before planting and permit only one or two fruits to mature on each plant.

One ounce of seed will plant about 25 hills; 4 to 5 pounds will plant an acre

MAMMOTH GOLDEN CUSHAW. A large crookneck variety with golden orange skin and deep, rich yellow flesh of the very finest quality. A productive sort and largely grown for table use. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 40 cts., lb. \$1.

LIVINGSTON CUSHAW. An old standby and a great favorite for pies. Crookneck shape; skin mottled green and white; flesh yellow, fine-grained and sweet. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 40 cts., lb. \$1.

SMALL SUGAR. Small but productive and of splendid quality. Fruits round with bright orange skin and thick, sweet flesh. Undoubtedly the best table Pumpkins for the small garden. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 40 cts., lb. \$1.

MAMMOTH TOURS. Grows to an enormous size, fruits often weighing 100 pounds or more. Skin mottled green; flesh yellow, rather coarse. Used principally for stock feeding. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 40 cts., lb. \$1.25.



King of Mammoths Pumpkin

LARGE CHEESE. Big, flat, handsome Pumpkins with light buff skin and yellow flesh. Prolific; largely grown for market and canning. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 40 cts., lb. \$1.

KING OF MAMMOTHS. Suitable for table use and splendid for pies. Can also be used for stock-feeding and often grown for exhibition purposes. Round, flattened at the ends, with golden orange skin and deep yellow flesh of fair quality. A good keeper. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 40 cts., lb. \$1.25.

CONNECTICUT FIELD. The common big field Pumpkin. Very productive; fruits oblong in shape, with bright yellow skin and rather coarse flesh. Usually grown for stock. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 35 cts., lb. 85 cts., 5 lbs. \$3.50.

KENTUCKY FIELD. Fruits a little smaller and more round in shape than the preceding. Flesh of better quality and suitable for table as well as stock. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 35 cts., lb. 85 cts., 5 lbs. \$3.50.

RHUBARB

Rhubarb gives best crops on deep, light soil which has been liberally enriched with manure. It is cheapest to start with seed but only a percentage of the plants grown from seed will be worth saving. Sow early in the spring, in drills an inch deep and a foot apart, and thin the plants to stand about 5 inches apart. The following spring, reset the best plants 3 to 4 feet apart each way. If you start with roots, plant them with the crown about 1 inch below the surface. Cultivate Rhubarb frequently and keep the weeds out. Give water, if needed, while the plants are producing and dress with manure every year after the cutting season is over. The first pulling may be made the second season after planting and the plant will continue to bear for many years.

VICTORIA. This is the best all-round variety. Productive and comes fairly true from seed. Seed, pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 60 cts., lb. \$2. **Roots**, 15 cts. each, \$1.50 per doz.; postpaid, \$1.75 per doz.

SALSIFY

Often called "Vegetable Oyster" or "Oyster Plant" on account of its flavor. Salsify is easy to grow on any good garden soil. Spade to a depth of a foot or more and make the soil as fine as possible. Sow the seed early, as the plants require a long season to attain full size; cover about an inch deep, in rows 12 to 15 inches apart, and thin the plants to 3 inches apart in the rows. Roots may be left in the ground all winter and dug as needed.

One ounce of seed will sow about 50 feet of drill; 10 pounds will sow an acre

MAMMOTH SANDWICH ISLAND. The best variety. Roots often 10 to 12 inches long, tender, and of delicious flavor. Pkt. 10 cts., oz. 25 cts., $\frac{1}{4}$ lb. 75 cts., lb. \$2.50.



Mammoth Sandwich Island Salsify

RADISHES

Everybody can and everybody wants to grow Radishes. Most any soil will do; if it is light and mellow so much the better. An extra-early crop can be grown in the hotbed from seed sown in February or early March. Start outdoors as soon as the ground can be put in shape and sow seed of any of the quick-growing round or olive-shaped sorts, not too thick, in drills a half inch deep and 1 to 1½ feet apart. Thin out the seedlings promptly to stand about an inch apart in the rows. Keep them growing fast by hoeing or cultivating every two or three days, otherwise they become pithy and bitter. After putting in seed for the first crop, make additional sowings every ten days to two weeks, but for the later crops, which will ripen in warm weather, use the long varieties. For late summer and fall use, sow the Summer and Winter Radishes which are larger and slower growing but will, unlike the early round Radishes, thrive in hot weather. The Summer Radishes may be sown any time up to August 1. The big Winter Radishes should be sown late in June to attain full size before frost.

One ounce of seed will sow about 100 feet of drill; 8 to 10 pounds will sow an acre

EARLY WHITE-TIP FORCING. A very attractive little Radish for forcing in frames or for early spring planting. Round, bright scarlet with clear white tip; small leaves. Pkt. 10 cts., oz. 15 cts., ¼lb. 40 cts., lb. \$1.

EARLY SCARLET TURNIP. Roots of medium size, round, smooth, bright red; tops small. Grows quickly and is one of the old standbys for forcing. Pkt. 10 cts., oz. 15 cts., ¼lb. 40 cts., lb. \$1.

NON PLUS ULTRA. The earliest forcing Radish in general use, ready for the table in 20 days from planting. Roots small, uniformly globe-shaped, and smooth, with brilliant scarlet skin and crisp white flesh. Fine for early sowing outdoors as well as for forcing. Pkt. 10 cts., oz. 15 cts., ¼lb. 40 cts., lb. \$1.

FRENCH BREAKFAST. An oblong or olive-shaped Radish of very fine quality. Early; bright carmine with clear white tip. Good for forcing and fine for the home-garden. Pkt. 10 cts., oz. 15 cts., ¼lb. 40 cts., lb. \$1.

CRIMSON GIANT. The largest of the early, round Radishes, maturing in about four weeks from sowing. Handsome, deep red, globe-shaped roots. Good for forcing and fine for the home-garden. Remains crisp and mild longer than other early sorts. Pkt. 10 cts., oz. 15 cts., ¼lb. 40 cts., lb. \$1.

GOLDEN YELLOW OVAL. Popular for late plantings as it grows well in hot weather. Olive-shaped, about 1½ inches long, with russet-yellow skin and pure white flesh of fine flavor. Pkt. 10 cts., oz. 15 cts., ¼lb. 40 cts., lb. \$1.

ICICLE. If you grow only one kind of Radish in your garden, you will be safe in choosing Icicle. It grows quickly, making handsome, long, smooth roots with pure white skin and crisp, mild flesh. Being more resistant to heat than other early Radishes, it is reliable for either spring or summer use and retains its crispness and flavor for a long time after it becomes ready for use. Suitable also for forcing. Pkt. 10 cts., oz. 15 cts., ¼lb. 40 cts., lb. \$1.

COPENHAGEN MARKET. A short-leaved, round, red sort, with the lower part white. Excellent both for forcing and outdoors. Pkt. 10 cts., oz. 15 cts., ¼lb. 40 cts., lb. \$1.

CINCINNATI MARKET. In shape much like Long Scarlet Short Top but a little longer and with a very small top. Skin rosy scarlet; flesh clear white, very brittle and mild. Popular for forcing. Pkt. 10 cts., oz. 15 cts., ¼lb. 40 cts., lb. \$1.

SUMMER RADISHES

WHITE LADY FINGER. Resembles Icicle but grows more slowly and is particularly desirable for late sowings as it retains its fine, crisp quality for a long time even in the hottest weather. Pkt. 10 cts., oz. 15 cts., ¼lb. 40 cts., lb. \$1.

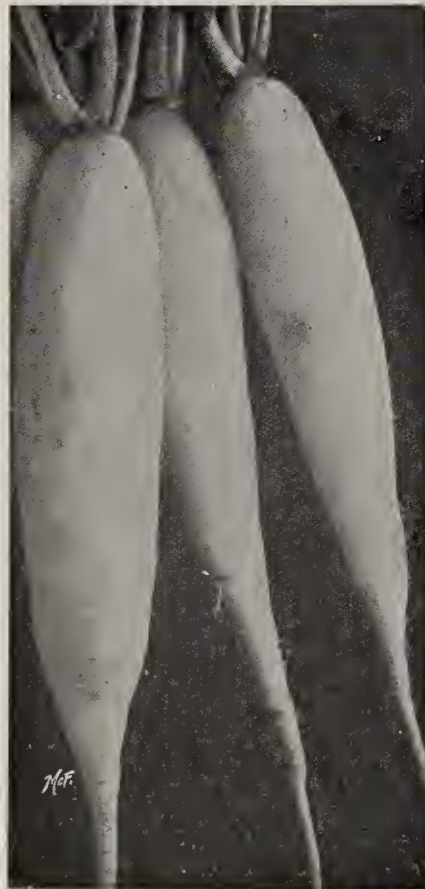
CHARTIER, IMPROVED. A splendid variety to plant for second-early, being intermediate in season between the early and the Summer Radishes. Roots 7 to 8 inches long, bright rose with white tip. Pkt. 10 cts., oz. 15 cts., ¼lb. 40 cts., lb. \$1.

WHITE STRASBURG. A long, oval Summer Radish of handsome appearance; a leading variety for market. Roots about 5 inches; skin and flesh pure white; remains firm and brittle longer than most sorts. Pkt. 10 cts., oz. 15 cts., ¼lb. 40 cts., lb. \$1.

WHITE STUTTGART. A large, late, pure white kind, with almost round or top-shaped roots 4 inches in diameter. Of good quality and a good keeper. Pkt. 10 cts., oz. 15 cts., ¼lb. 40 cts., lb. \$1.



Early Scarlet
Globe Radishes



Icicle Radishes

WINTER RADISHES

LONG BLACK SPANISH. One of the hardiest and best keeping sorts. Roots 7 to 9 inches long and 2 to 3 inches in diameter at the top, tapering to an abrupt point. Skin black; flesh clear white and of fine quality. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 40 cts., lb. \$1.

LONG WHITE SPANISH. Exactly like the preceding except in color of skin. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 40 cts., lb. \$1.

ROUND BLACK SPANISH. Similar to the Long Black Spanish. Roots nearly round, 3 to 4 inches in diameter. The round shape is preferred in some markets. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 40 cts., lb. \$1.

CELESTIAL, or White Chinese. Grows more quickly than the Spanish types; roots handsome, cylindrical in shape, often 8 inches long and 3 inches in diameter; skin and flesh pure white. Of fine quality and a good keeper. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 40 cts., lb. \$1.

CHINESE ROSE. Roots 4 to 5 inches long, cylindrical, or larger near the bottom; skin smooth, bright rose in color; flesh white, crisp and tender. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 40 cts., lb. \$1.

SPINACH

One ounce of seed will sow about 100 feet of drill; 14 to 15 pounds will sow an acre

From the standpoint of health, there are few vegetables more valuable than Spinach. Room should be made for it in every garden, small or large. It is easy to grow but should have a moderately rich, well-dug soil. Start the first crop in drills an inch deep and 15 inches apart as soon as the ground can be made ready in the spring, and follow this with succession sowings every ten days up to the middle of May. Make additional sowings in August and September for fall use. Thin the plants to stand about 5 inches apart. To provide Spinach during hot weather, when ordinary varieties do not thrive, make a sowing of the heat-resistant New Zealand Spinach about May 1. For extra-early Spinach in the spring, sow one of the hardy sorts late in September and protect the plants over winter.

BLOOMSDALE SAVOY-LEAVED. (Reselected.) Very hardy and consequently, most desirable for autumn and early spring use. The plants are upright and vigorous, with thick crumpled leaves. Oz. 10 cts., $\frac{1}{4}$ lb. 20 cts., lb. 45 cts., 5 lbs. \$1.65, 10 lbs. \$2.75, 25 lbs. \$5.50.

TRIUMPH. A large-growing variety which stands for a long time before going to seed. Leaves broad, somewhat crumpled, tender, and of fine flavor. For spring and early summer. Oz. 10 cts., $\frac{1}{4}$ lb. 20 cts., lb. 45 cts., 5 lbs. \$1.65, 10 lbs. \$2.75, 25 lbs. \$5.50.

LONG SEASON. Somewhat like Triumph, remaining in marketable condition a long time. Oz. 10 cts., $\frac{1}{4}$ lb. 20 cts., lb. 45 cts., 5 lbs. \$1.65, 10 lbs. \$2.75, 25 lbs. \$5.50.

VICTORIA. Another variety of the Triumph type, which stands hot weather better than other sorts and is slow to go to seed. Leaves very large and thick, deep green in color, and of superior quality. Oz. 10c., $\frac{1}{4}$ lb. 20 cts., lb. 45 cts., 5 lbs. \$1.65, 10 lbs. \$2.75, 25 lbs. \$5.50.

IMPROVED LARGE ROUND THICK-LEAVED. A hardy, vigorous sort, particularly valuable to market-gardeners for early spring sowing. Oz. 10 cts., $\frac{1}{4}$ lb. 20 cts., lb. 45 cts., 5 lbs. \$1.65, 10 lbs. \$2.75, 25 lbs. \$5.50.

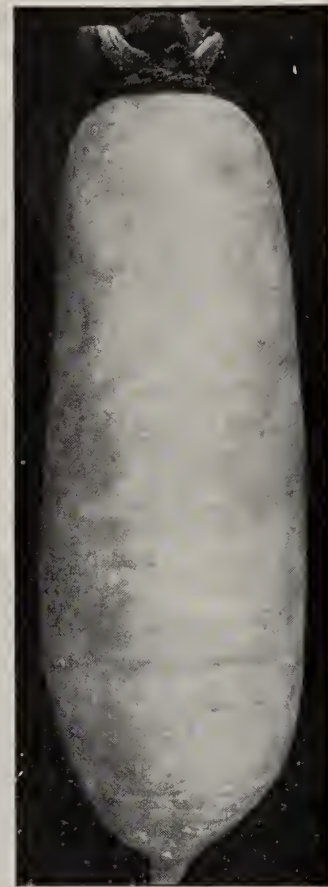
KING OF DENMARK. A very fine new Spinach which stands a week or two longer before shooting to seed than any other sort. The plants are large with thick, crumpled, dark green leaves. Oz. 10 cts., $\frac{1}{4}$ lb. 20 cts., lb. 45 cts., 5 lbs. \$1.80, 10 lbs. \$3.25, 25 lbs. \$6.50.

JULIANA. A good second-early variety that grows close to the ground and has dark green, crumpled leaves that keep fresh-looking and retain their crispness a long time after being cut. Stands well. Oz. 10 cts., $\frac{1}{4}$ lb. 20 cts., lb. 45 cts., 5 lbs. \$1.80, 10 lbs. \$3.25, 25 lbs. \$6.50.

BLOOMSDALE (LONG-STANDING). A very early, blight-resistant, hardy sort that is much planted for market and canning. Leaves curled and wrinkled. Oz. 10 cts., $\frac{1}{4}$ lb. 20 cts., lb. 45 cts., 5 lbs. \$1.80, 10 lbs. \$3.25, 25 lbs. \$6.50.

NEW ZEALAND. A distinct type of Spinach which makes large, bushy plants, often 3 feet in diameter. Only the young leaves and tips of the branches are used and the more they are picked, the faster the plant seems to grow. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 20 cts., lb. 50 cts., 5 lbs. \$2.25, 10 lbs. \$4.

SWISS CHARD. See page 7



Celestial Radish



Bloomsdale Savoy-leaved Spinach



Juliana Spinach

SQUASH

One ounce of Squash seed will plant 15 to 20 hills; 3 to 5 pounds will plant an acre, according to variety

In general culture the Squashes are much like the melons, but they do not require such a long growing season and are more dependable producers. Best results are secured on light soils which have been heavily manured. Sow the seed in hills, about 4 feet apart each way for the summer varieties and 10 to 12 feet for the late or winter sorts. Do not sow, however, until the soil is warm and dry—the end of May is about right in this section. Use plenty of seed in each hill, twelve to fifteen anyway, to provide against the inevitable losses from insects; after the plants get a good start pull out all but four or five. The Squash vine borer may cause some trouble during the season but can be discouraged by sprinkling tobacco dust close around the plants. Covering the vines with a little soil at several joints so that they take root there will also help to limit its destructiveness. The black Squash bug can best be kept in check by hand picking; spraying with calcium arsenate is the proper remedy for the striped beetle.

MAMMOTH WHITE BUSH. One of the earliest and most popular of the Summer Squashes. Compact in growth and prolific, with ivory-white fruits, round with scalloped edges. For both market and home-gardens. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 50 cts., lb. \$1.25.

YELLOW SUMMER CROOKNECK. An old favorite. Long, curved fruits with thin, golden yellow, warted skin; sweet, tender flesh. Pkt. 10c., oz. 20c., $\frac{1}{4}$ lb. 50c., lb. \$1.25.

COCOZELLE (Italian Vegetable Marrow). One of the most useful Summer Squashes for home planting. It is bushy in growth, requiring little space, and produces quantities of oblong fruits, averaging a foot long, with green skin, mottled and striped with yellow and darker green. Quality extra-fine. Pkt. 10c., oz. 20c., $\frac{1}{4}$ lb. 50c., lb. \$1.50.

FORDHOOK. An excellent variety, suitable for both summer and winter use. The fruits are oblong, 8 to 10 inches long, with thin, light yellow skin and thick, straw-colored flesh. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 50 cts., lb. \$1.25.

BOSTON MARROW. A productive late variety, generally considered the best for canning and for pies. It is shaped like the well-known Hubbard, with orange skin and thick flesh. A good keeper. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 50 cts., lb. \$1.25.

ORANGE MARROW. Earlier, more prolific, and a little smaller, but otherwise similar to Boston Marrow. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 50 cts., lb. \$1.25.

IMPROVED HUBBARD. A selection from the old Hubbard, with more vigorous vine and slightly larger fruits. Skin smooth, dark green; flesh deep yellow and of superb quality. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 50 cts., lb. \$1.25.

WARTED HUBBARD. Similar in size and shape to the Improved Hubbard, but the skin is heavily warted and very dark green, almost black, in color. The best keeper of the Hubbard type. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 50 cts., lb. \$1.25.

GOLDEN HUBBARD. True Hubbard shape but earlier, a trifle smaller, and the skin is a rich orange-red in color. Flesh deep orange, dry and sweet; an excellent keeper. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 50 cts., lb. \$1.25.



Hubbard Squash



Mammoth White Bush Squash

HERBS

Grandmother's garden always had a little patch of herbs and, doubtless, much of the savoriness of grandmother's cooking as well as the effectiveness of her home remedies was derived from her store of "yarbs." Most of the commoner herbs are perennials, although they last but a few seasons in ordinary situations. Any odd corner will do, providing it is sunny and the soil not too hard or poor. Sow seed in early spring, thinning out as needed. The seeds of many herbs are slow and irregular in germinating.

ANISE. Used principally for flavoring and for garnishing. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 60 cts., lb. \$2.

BALM. Used for making a medicinal tea. Pkt. 10 cts., oz. 35 cts., $\frac{1}{4}$ lb. \$1, lb. \$3.

SWEET BASIL. A highly aromatic herb whose leaves and tops are used for seasonings and, in a limited way, in salads. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

BORAGE. An annual plant that is used freely by bee-keepers. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

CARAWAY. The seeds of this plant are used for culinary purposes, in confectionery and also in medicines. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 40 cts., lb. \$1.

CARDOON. Grown somewhat like celery and served like asparagus. Pkt. 10 cts., oz. 40 cts., $\frac{1}{4}$ lb. \$1.25, lb. \$4.

CHIVES. Used as a substitute for onions in soups and salads. Pkt. 25 cts., oz. 75 cts., $\frac{1}{4}$ lb. \$2.25, lb. \$8.

CORIANDER. An annual whose seeds are strongly aromatic. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 40 cts., lb. \$1.

CURLED CHERVIL. Leaves of Chervil very much resemble those of parsley and are used in a similar way. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 60 cts., lb. \$2.

DILL. An annual plant, seeds of which are used as a seasoning and also in the preparation of Dill pickles. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 35 cts., lb. \$1.

FLORENCE FENNEL. A very delicious salad vegetable. It can be served like celery or boiled. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

HOREHOUND. Annual; chiefly used for medicinal purposes, as it has strong tonic properties. Pkt. 10 cts., oz. 40 cts., $\frac{1}{4}$ lb. \$1.25, lb. \$4.

LAVENDER. Dried flowers impart a pleasing odor to the contents of linen-chests. Pkt. 10 cts., oz. 35 cts., $\frac{1}{4}$ lb. \$1, lb. \$3.

SWEET MARJORAM. Pleasingly fragrant and of particular value as a seasoning. Pkt. 10 cts., oz. 35 cts., $\frac{1}{4}$ lb. \$1, lb. \$3.

RUE. A medicinal plant of extremely pungent taste. Pkt. 10 cts., oz. 35 cts., $\frac{1}{4}$ lb. \$1, lb. \$3.

SAFFRON. Cultivated for medicinal purposes. Pkt. 10 cts., oz. 25 cts., $\frac{1}{4}$ lb. 75 cts., lb. \$2.50.

SAGE. An old familiar herb with a pungent odor. Pkt. 10 cts., oz. 30 cts., $\frac{1}{4}$ lb. \$1, lb. \$3.

SUMMER SAVORY. Dried foliage used for flavoring during the winter months. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

SWEET FENNEL. The leaves are finely cut and are used for garnishing. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

THYME. The leaves and young branches are used for seasoning. Pkt. 10 cts., oz. 40 cts., $\frac{1}{4}$ lb. \$1.50, lb. \$5.

WORMWOOD. Has medicinal qualities. Pkt. 10 cts., oz. 35 cts., $\frac{1}{4}$ lb. \$1, lb. \$3.



Purple-Top Strap-Leaf Turnip

EXTRA-EARLY WHITE MILAN. The quickest growing of the Turnips, largely used for spring sowings. The roots are small and flat with pure white skin and flesh; mild and sweet. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 35 cts., lb. \$1.

YELLOW GLOBE. Round, smooth roots of medium size, with light yellow skin and flesh. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 30 cts., lb. 75 cts.

COW HORN. Roots shaped rather like a carrot, often over a foot long and 3 inches in diameter, with a considerable part of their length above ground. Skin and flesh white. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 30 cts., lb. 75 cts., 5 lbs. \$3.25.

SEVENTOP. A variety widely grown throughout the South in regions of milder winters. Used extensively for winter greens. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 30 cts., lb. 75 cts.

RUTABAGA or SWEDE TURNIP

Rutabagas are grown much like garden Turnips but they require a longer season and attain a larger size. Sow during June or early July in rows 15 to 18 inches apart and thin out to 8 to 10 inches. Where the summers are temperate an early crop can be grown from spring sowings. Although largely grown for feeding to stock, Rutabagas are considered by many to be superior to Turnips in table quality and they are particularly good winter keepers. Dig the roots before the ground freezes and store in a cold cellar or in pits outdoors.



Improved Purple-Top Rutabaga

TURNIPS

Any ordinary garden soil will produce good crops of Turnips. Freshly manured land should not be used, but deep digging and thorough preparation are essential to produce smooth, well-flavored roots. As Turnips develop best in cold weather, the main crop is usually sown in July or August, to mature during the fall, but early-season crops can be obtained by sowing the quick-maturing varieties as soon as the ground can be prepared in the spring. Sow in drills 12 to 15 inches apart and cover firmly with about $\frac{1}{2}$ inch of soil. Scatter the seed thinly so as to reduce the amount of thinning required when the plants are 2 to 3 inches high. The early sorts should stand 3 to 4 inches apart in the rows and the large main-crop Turnips about 6 inches. The roots may be stored like beets for winter use, if dug before hard frost.

An ounce of seed will sow about 100 feet of drill; a pound will sow an acre

PURPLE-TOP STRAP-LEAF. A quick-growing variety desirable for both early and late planting. The roots are flat and quite large; skin white except for a ring of purple around the top; flesh white, fine-grained and of excellent table quality. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 30 cts., lb. 75 cts., 5 lbs. \$3.25.

PURPLE-TOP WHITE GLOBE. The standard main-crop Turnip for market and often grown for feeding to stock. The roots are large, nearly round, white with upper third purple. The flesh is firm and of good quality. Productive and a splendid keeper. Pkt. 10c., oz. 15c., $\frac{1}{4}$ lb. 30c., lb. 75c., 5 lbs. \$3.25.



Purple-Top White Globe Turnip

SWEET GERMAN. A large, globe-shaped variety with white skin and flesh. Fine-grained, solid and sweet, lacking the strong taste which many Turnips develop. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 30 cts., lb. 75 cts.

IMPROVED PURPLE-TOP. Hardy and productive, with large, globular roots, very uniform in shape and size. Skin smooth, light yellow with purple top; flesh yellow, firm, and of fine quality. Can be stored in good condition all winter and well into the following summer. Pkt. 10 cts., oz. 15 cts., $\frac{1}{4}$ lb. 30 cts., lb. 75 cts..

TOBACCO

For best results, Tobacco requires a rich, mellow soil and careful cultivation. Sow the seed in frames or a fine seed bed early in April and reset the plants in the open ground late in May or early in June, spacing them 2 feet apart in rows 4 feet apart. Cultivate frequently.

CONNECTICUT SEED-LEAF. One of the hardiest and most popular sorts. Pkt. 10 cts., $\frac{1}{2}$ oz. 35 cts., oz. 60 cts., $\frac{1}{4}$ lb. \$1.75.

HAVANA. True type; productive and of finest quality. Pkt. 10 cts., $\frac{1}{2}$ oz. 35 cts., oz. 60 cts., $\frac{1}{4}$ lb. \$1.75.

TOMATOES

An ounce of seed will produce about 2,000 plants;
4 ounces should give sufficient plants for an acre

Thriving in any soil, and producing the most bounteous returns in small space, Tomatoes are an ideal crop for the home-garden. They should have plenty of sunlight and moisture but are not at all particular as to soil. The seed should be sown indoors in late February or March, in shallow boxes or pots placed in a warm, sunny window. As soon as the little plants are strong enough, thin or transplant them to stand 3 to 4 inches apart; then when they are about 3 inches high transfer them to small paper pots or dirt-bands. To secure extra-strong, stocky plants, transfer them again, when 6 to 8 inches tall, to larger pots. As the season advances, "harden" them by exposing them to the air on warm days, but protect them carefully from chill at all times. When all danger from frost is past—generally after the middle of May—set them out in the garden, spacing them about 4 feet apart each way. Water freely at the time of transplanting and push the young plants along with an occasional light application of nitrate of soda or liquid manure. In large field plantings it would hardly be practicable to stake each plant, but in the home-garden it is certainly well worth while, for not only do staked plants take up less room but they produce more and better fruit, and ripen earlier. Set stout stakes 5 to 6 feet high firmly in the ground close to the base of each plant, trim off all but two or three of the strongest shoots and tie these to the stake with strips of cloth, soft twine or raffia. As the plants grow, trim out side shoots and suckers, and when the vines reach the top of the stake, pinch off the tops. To guard against blight spray the plants with Bordeaux Mixture or Sulfocide two or three times during the season; arsenate of lead will kill the tomato worms. The average home-gardener will find it advisable to grow at least three varieties of Tomatoes to provide a succession of fruit during the season.



Break o'Day
Tomato

BREAK O'DAY. A new scarlet-fruited variety developed from a cross between Marglobe and Marvana, and introduced by the United States Department of Agriculture. It is earlier than Marglobe and fruits are freer from cracking around stem end than Marglobe. They are of good size, smooth and of good quality. Trials have shown it to be a desirable type to plant for early market as the quality of fruit is exceptional compared to other early maturing varieties. Pkt. 15 cts., $\frac{1}{2}$ oz. 35 cts., oz. 60 cts., $\frac{1}{4}$ lb. \$1.75, lb. \$6.

PRITCHARD. Very early, productive, and self-topping. Fruits scarlet within and without, firm and meaty, with no core and practically no seed-pockets. Outstanding for its remarkable productiveness, breaking all records. Pkt. 15 cts., $\frac{1}{2}$ oz. 35 cts., oz. 60 cts., $\frac{1}{4}$ lb. \$1.75, lb. \$6.

JOHN BAER. Undoubtedly one of the most valuable of all early varieties of Tomato. The fruits are of good size, perfectly smooth, and nearly globe-shaped, with brilliant scarlet skin and firm flesh, entirely free from core and with few seeds. The flavor is mild and deliciously sweet. Pkt. 10 cts., $\frac{1}{2}$ oz. 35 cts., oz. 60 cts., $\frac{1}{4}$ lb. \$1.75, lb. \$6.

BURBANK. (94 days.) An earliest, scarlet-fruited variety. Fruits are small to medium in size, quite smooth but inclined a little to angularity. Cell structure is very irregular. Fruits set in large clusters. Vine is rather small, open and spreading. It is similar to Earliana. Pkt. 15 cts., $\frac{1}{2}$ oz. 35 cts., oz. 60 cts., $\frac{1}{4}$ lb. \$1.75, lb. \$6.

EARLIANA, SPARK'S. This is the original Earliana Tomato, for years the standby for first-early market. The plants are compact, with light foliage; the fruits are of good size, bright red, and quite solid. Pkt. 10c., $\frac{1}{2}$ oz. 35c., oz. 60c., $\frac{1}{4}$ lb. \$1.75, lb. \$6.

AVON EARLY. A variety which ripens with Earliana. It has smooth, deep red fruits which are nearly round, smooth, solid, free from cracks, and excellent for shipping. Pkt. 10 cts., $\frac{1}{2}$ oz. 30 cts., oz. 50 cts., $\frac{1}{4}$ lb. \$1.50, lb. \$5.

JUNE PINK. The best extra-early pink or purplish colored Tomato, similar to Earliana in earliness and in most other respects except color. Pkt. 10 cts., $\frac{1}{2}$ oz. 35 cts., oz. 60 cts., $\frac{1}{4}$ lb. \$1.75, lb. \$6.

BONNY BEST. The most popular Tomato grown to follow Earliana or John Baer. It is remarkably productive even on light soils, producing large, round, smooth fruits in handsome clusters. Uniform in size and shape, solid, free from cracks, bright scarlet in color. A fine variety for the home-garden. Pkt. 10 cts., $\frac{1}{2}$ oz. 35 cts., oz. 60 cts., $\frac{1}{4}$ lb. \$1.75, lb. \$6.

CHALK'S EARLY JEWEL. Ripening at about the same time as Bonny Best, this variety is an enormous producer, particularly on heavy soils. The fruits are a little larger than Bonny Best, slightly flattened in shape and bright scarlet in color, always solid, with hard, smooth skin. Excellent for market and shipping. Pkt. 10 cts., $\frac{1}{2}$ oz. 35 cts., oz. 60 cts., $\frac{1}{4}$ lb. \$1.75, lb. \$6.

EARLY DETROIT. A pink-fruited Tomato which may be compared with Chalk's Early Jewel among the scarlet sorts. Fruits nearly round, firm, and of fine quality. One of the best for shipping. Pkt. 10c., $\frac{1}{2}$ oz. 30c., oz. 50c., $\frac{1}{4}$ lb. \$1.50, lb. \$5.

GULF STATE MARKET. An early, purple-fruited variety. Smooth and free from cracks; productive; a good shipper. Pkt. 10 cts., $\frac{1}{2}$ oz. 30 cts., oz. 50 cts., $\frac{1}{4}$ lb. \$1.50, lb. \$5.



Marglobe Tomato



Livingston's Globe Tomato

TOMATOES, continued

LIVINGSTON'S GLOBE. One of the most valuable Tomatoes in cultivation, coming right after Chalk's Jewel and continuing to bear until frost, producing heavy crops of good-sized, uniform, distinctly globe-shaped fruits with smooth, glossy, purplish rose skin. Mild in flavor, meaty, and with very few seeds. Pkt. 10 cts., $\frac{1}{2}$ oz. 35 cts., oz. 60 cts., $\frac{1}{4}$ lb. \$2, lb. \$7.

MARGLOBE. The fruits are of medium size, smooth, solid, and deep from stem to blossom end, with an irregular cell structure. They are borne in clusters of five to seven. The vine makes medium to heavy growth. A good main-crop variety. Pkt. 10 cts., $\frac{1}{2}$ oz. 35 cts., oz. 60 cts., $\frac{1}{4}$ lb. \$1.75, lb. \$6.

TRUCKER'S FAVORITE. A dependable, late, main-crop, purple sort, bearing large, flattened fruits which are smooth and solid and of fine quality. The vines are unusually vigorous and not subject to blights. One of the most productive. Pkt. 10 cts., $\frac{1}{2}$ oz. 35 cts., oz. 60 cts., $\frac{1}{4}$ lb. \$2, lb. \$7.

BEEFSTEAK. Late; purplish pink; vines strong and vigorous; very little seed; large, solid fruit. Pkt. 10 cts., $\frac{1}{2}$ oz. 40 cts., oz. 75 cts., $\frac{1}{4}$ lb. \$2.25, lb. \$8.

MATCHLESS. A favorite, main-crop, bright red Tomato. The plants are strong-growing, bearing big crops of large, solid fruits. Quality excellent. Pkt. 10 cts., $\frac{1}{2}$ oz. 35 cts., oz. 60 cts., $\frac{1}{4}$ lb. \$1.75, lb. \$6.

OXHEART. (120 days.) A main-crop, pink-fruited variety. Fruits are large, bulging, heavy and solid, tapering almost to a point, with broken cell structure. They set in clusters of three to seven. Vine growth is open and spreading. Pkt. 15 cts., $\frac{1}{2}$ oz. 40 cts., oz. 75 cts., $\frac{1}{4}$ lb. \$2.25, lb. \$8.

STONE. An unusually productive, smooth, bright red Tomato, probably grown more extensively than any other variety in cultivation. It is a favorite for canning and a most dependable sort for main crop in both market and home-gardens. Pkt. 10 cts., $\frac{1}{2}$ oz. 35 cts., oz. 60 cts., $\frac{1}{4}$ lb. \$1.75, lb. \$6.

GREATER BALTIMORE. A selection from Stone with all the good qualities of that fine old standby, but comes into bearing a little earlier. It is particularly desirable for canning. Pkt. 10 cts., $\frac{1}{2}$ oz. 35 cts., oz. 60 cts., $\frac{1}{4}$ lb. \$1.75, lb. \$6.

RED ROCK. Intermediate in season between Chalk's Jewel and Stone and resembles the latter in size and productivity. Fruits extra smooth, round, and bright red in color. Splendid for truckers and canners. Pkt. 10 cts., $\frac{1}{2}$ oz. 35 cts., oz. 60 cts., $\frac{1}{4}$ lb. \$1.75, lb. \$6.

DWARF STONE. Bushy, compact plants, bearing large, solid bright red fruits of the finest quality. Require little space and no support. Medium early. Pkt. 10 cts., $\frac{1}{2}$ oz. 35 cts., oz. 60 cts., $\frac{1}{4}$ lb. \$1.75, lb. \$6.

DWARF CHAMPION. Very dwarf and compact in growth. It comes into bearing quite early; the fruits are of medium size, round and smooth with purplish pink skin and firm flesh of fine, mild flavor. Pkt. 10 cts., $\frac{1}{2}$ oz. 30 cts., oz. 50 cts., $\frac{1}{4}$ lb. \$1.50, lb. \$5.

BUCKEYE STATE. A dark purple Tomato of very large size; late but a heavy cropper. Fruits nearly globe-shaped, always smooth and solid, seldom cracking even when fully ripened. Pkt. 10 cts., $\frac{1}{2}$ oz. 40 cts., oz. 75 cts., $\frac{1}{4}$ lb. \$2.25, lb. \$8.

PONDEROSA. One of the best varieties for home-gardens and probably the largest Tomato in cultivation, also the finest in table quality. The plants are vigorous, medium in season, and bear clusters of enormous fruits, which weigh as high as two pounds apiece. Somewhat irregular in shape but extremely solid and with very few seeds. Purplish pink. Pkt. 10 cts., $\frac{1}{2}$ oz. 40 cts., oz. 75 cts., $\frac{1}{4}$ lb. \$2.25, lb. \$8.

YELLOW PONDEROSA. The yellow-fruited varieties of Tomatoes are preferred for table use by many planters on account of their very mild and sweet flavor. Skin clear golden yellow; flesh pale yellow, solid and meaty. Pkt. 10 cts., $\frac{1}{2}$ oz. 40 cts., oz. 75 cts., $\frac{1}{4}$ lb. \$2.25, lb. \$8.

GOLDEN QUEEN. A productive sort, bearing good-sized, round, smooth fruits, bright yellow in color, solid and of splendid quality. Pkt. 10 cts., $\frac{1}{2}$ oz. 40 cts., oz. 75 cts., $\frac{1}{4}$ lb. \$2.25, lb. \$8.

YELLOW PLUM. The fruits resemble a plum in size and shape but are bright yellow in color. Enormously prolific; in great demand for preserving. Pkt. 10 cts., $\frac{1}{2}$ oz. 35 cts., oz. 60 cts., $\frac{1}{4}$ lb. \$2, lb. \$7.



Stone Tomato

VEGETABLE PLANTS

During the planting season we are prepared to furnish the following plants:

Tomato, Cabbage, Cauliflower, Beet, Pepper, Kohlrabi, Kale, Brussels Sprouts, Celery, Sweet Potato, and Eggplant. Ask for prices when planting season opens, specifying quantity wanted.

FLOWER SEEDS



GROWING FLOWERS FROM SEED

For best results, use a shallow box filled with light, rich soil not likely to bake or form a crust when the surface dries. Tamp firmly, so that the level is about half an inch below the top of the box. Make shallow furrows crossways, about an inch apart. Very fine seeds, like Petunias and Portulacas, need merely marks; large seeds, like Scabiosas, Lupines, and Four-o'Clocks, should have furrows a half-inch deep. Sow the seed thinly in the rows, and label each row. Sift fine soil, mixed with sand, over the seeds, covering them to the soil-level. Then press the surface with a board or a brick, and water with a very fine nozzle or sprinkle the surface with a whisk-broom dipped in water. Cover the box with a sheet of glass and newspaper, and set it in a warm position, watching from day to day to see that the surface does not get dry or become soggy.

As soon as the seedlings break through the ground, the newspaper must be removed and the box set where it will receive the largest amount of sunlight. When the first leaves are fully formed, remove the glass or tilt it to admit air; when the seedlings are all up and gathering strength, take off the glass.

Special care will be needed in watering. If too much water is used, the seedlings are likely to damp off; if not enough, they will not grow rapidly.

While the seeds are growing, prepare other boxes into which to transplant them. Fill with light, rich soil and mark the surface into 2-inch squares, and when the seedlings have acquired their second set of leaves, transplant them. They will need shading until they take hold of the ground. After that, give them plenty of light and water until it is warm enough to set them outdoors.

If you have a coldframe, the seedlings may be transferred from the seed-trays to the coldframe instead of into boxes.

Perennials require exactly the same treatment, except that sowing may be delayed until the annuals are out of the way, and the seedlings may be grown on in a temporary nursery until autumn when they must be moved to the beds in which they are to flower next year.

ASTERS

Asters prefer an open, sunny situation and they respond amazingly to fertilizers and good cultivation. It is advisable to change the location of the Aster-bed each year if you want large flowers and lots of them. For early bloom, start the seed in a window-box or hotbed, in March, giving the little plants plenty of light and water as required, and thinning 3 to 4 inches apart, or transplanting them when a few inches high to small pots. Set them out after danger from frost is past. For solid beds of color, set the plants 8 to 10 inches apart, but if large flowers and long stems are wanted for cutting, plant at least 1 foot apart in rows 1½ to 2 feet apart. The seed may be sown outdoors in early May with good results, except that the plants will bloom later.

SEMPLÉ'S BRANCHING. Extra-large flowers, with heavy, incurved petals, on long, stiff stems. A magnificent sight from late August on, and ideal for cutting. Beds of one color are most attractive.

Pure White, Dark Blue, Rose-Pink, Crimson.

Each, pkt. 10 cts., ½oz. 85 cts., oz. \$1.50.

Mixed. All of the above colors. Pkt. 10 cts., ½oz. 85 cts., oz. \$1.50.

QUEEN OF THE MARKET ASTERS. The plants are low and bushy, bearing quantities of large, deep flowers from July on.

White, Pink, Crimson, Lavender, Purple.

Each, pkt. 10 cts., ½oz. 85 cts., oz. \$1.50.

Mixed Colors. Pkt. 10 cts., ½oz. 75 cts., oz. \$1.25.

GIANT CALIFORNIA, SUNSHINE. Artistic flowers with a single row of rays, and a tufted center of a contrasting color, usually golden yellow. Mixed colors. Pkt. 25 cts., ½oz. \$2.25, oz. \$4.

Asters continued on page 31



Giant California Aster



Giant California Sunshine Aster



Ageratum



Alyssum



Arctotis hybrida

ASTERS, continued

GIANT CALIFORNIA, IMPROVED.

Very large, chrysanthemum-shaped flowers on long, strong stems. Excellent for large beds or cut-flower purposes.

White, Peach-Blossom, Light Blue, Light Purple, Deep Rose, Dark Purple, and Mixed. Pkt. 25 cts., 1/2 oz. \$1.75, oz. \$3.

AURORA ASTERS. A new class of China Asters with large flowers somewhat like those of the Sunshine strain, but with a larger center, full of florets and rather short outer petals. It grows about 2 feet high, with upright stems. Excellent cut-flower.

Azure-Blue. The outer petals at the edge are large, and open clear azure-blue; all of the other petals in the quilled center are yellow. Pkt. 25 cts.

Golden Queen. Outer petals creamy white; center golden yellow. Pkt. 25 cts.

ASTERS Perennial. Michaelmas

Daisy. Tall, autumn-flowering. Daisies of blue and mauve. Pkt. 15 cts., 1/2 oz. \$1.25, oz. \$2.

ALYSSUM. The ever-popular and always satisfactory flower for edging beds or planting in porch-boxes or rockeries. Sow the seed in the open ground any time from early April to June. Blooms all summer.

White Sweet. The old-fashioned variety. Low-growing and spreading; sweet-scented; flowers pure white. Pkt. 5 cts., 1/2 oz. 15 cts., oz. 25 cts.

Little Gem. A dwarf form which makes dense, round, little bushes about 6 inches high, covered with white flowers; very fragrant. Pkt. 10c., 1/2 oz. 25c., oz. 40c.

Procumbens. Carpet of Snow. Grows only a few inches high; covered with snow-white blossoms. Best for florists' use. Pkt. 10 cts., 1/2 oz. 30 cts., oz. 50 cts.

Saxatile compactum, Blanket of Gold. Hardy perennial, bushy plants a foot high, spreading 18 inches or so. Foliage rough, gray-green, covered in spring with millions of tiny bright yellow flowers in clusters. A good rock-plant. Pkt. 10 cts., 1/2 oz. 40 cts., oz. 75 cts.

AGERATUM. This thrifty annual, sometimes called "Floss

Flower," is splendid for low borders and edging, and is often used for porch-boxes. From seed sown outdoors in May, it comes into bloom in July and flowers continuously until frost, but to have blooms earlier start indoors in March.

Blue Perfection. Valued for its pretty, deep lavender-blue flowers which are borne in great profusion. The plants grow about 15 inches high. Pkt. 10 cts., 1/2 oz. 30 cts., oz. 50 cts.

Dwarf Blue. Low and compact, growing only about 10 inches high. Small, fluffy, azure-blue flowers. Fine for edging. Pkt. 10 cts., 1/2 oz. 30 cts., oz. 50 cts.

Grandiflorum. This new Ageratum surpasses all other varieties known to horticulture in its dwarf, compact habit and very long flowering period. The flowers are a beautiful blue which sometimes changes to a slightly rosy tint. In combination with the original bright blue color this makes a marvelous effect. Pkt. 25 cts.

AMARANTHUS. Striking plants

grown for their brilliantly colored foliage. The seed is usually started in the house or hotbed early in the spring, or in a special seed-bed outdoors later on, and the young plants transplanted when a few inches high to the place where they are to stand during the season.

Tricolor. Often called "Joseph's Coat." The plants are tall and erect, attaining a height of 5 feet in good soil. The luxuriant foliage is gorgeously marked with scarlet, yellow, and green. Pkt. 10 cts., 1/2 oz. 30 cts., oz. 50 cts.

ARCTOTIS hybrida. Undoubtedly

one of the most beautiful novelties introduced during the last few years. The large, showy, daisy-like flowers come in many beautiful shades, with a darker central disk. Leaves are crested and fringed, silvery beneath. The rich and abundant blooming of this plant makes it very desirable for cutting. Grows about 12 to 15 inches high. Pkt. 25 cts.

ARABIS alpina. Excellent rock-garden plant, also useful for edging broad borders. Foliage gray-green. Flowers white, in early spring, borne in clusters on stems 6 inches high. Pkt. 10 cts., 1/2 oz. 30 cts., oz. 50 cts.

ARENARIA grandiflora. Trailing plant with bright green foliage, suitable for rock-crevices or well-drained banks. Flowers white, with pale green centers, on stems less than 2 inches high. Pkt. 25 cts., 1/2 oz. \$2.25, oz. \$4.

Montana. Popular rock-garden trailer with creeping stems and tiny, light green foliage. Flowers glistening white of icy purity, with pale, apple-green eyes. Pkt. 25 cts., 1/2 oz. \$2.25, oz. \$4.

ARMERIA maritima. Dwarf Thrift. Rock-garden or edging plant making handsome, evergreen, mossy tufts from which rise clustered flowers on 4-inch stems, like pale pink clover blossoms. Pkt. 10 cts., 1/2 oz. \$1.75, oz. \$3.

Maritima. Giant Thrift. Taller plant with grass-like foliage and pale pink, clustered flowers on 2-foot stems. Pkt. 10 cts., 1/2 oz. \$1.50, oz. \$2.75.

BALLOON VINE. A rapid-growing annual climber with dark green leaves and small white flowers, followed by curious balloon-like seed-pods. An interesting and desirable vine to grow on porch trellises. Sow the seed during late April or May. Sometimes grown in pots and porch-boxes. Pkt. 5 cts., 1/2 oz. 25 cts., oz. 45 cts.

BALSAM. Everyone knows this old familiar flower by the name of "Lady's Slipper." The plants are tender when young so the seed should either be started inside or sown outdoors late in May when the soil and weather are warm.

Double Varieties, Mixed. Large flowers, resembling camellias, in White, all shades of Pink, Scarlet, deep Crimson, and Purple, some of them attractively spotted and blotched. Pkt. 5 cts., 1/2 oz. 25 cts., oz. 45 cts.



Giant Empress Candytuft



Canterbury Bells



Calliopsis

BEGONIA. The Begonias are great favorites, both as pot plants in the home in winter and for outdoor bedding during the summer. Seed is fine and must be sown on well-prepared, rich soil in the greenhouse or in shallow boxes placed in a warm, sunny window.

Vernon. Brilliant deep scarlet flowers and glossy, bronze-colored leaves. Dwarf and bushy in growth. Pkt. 25 cts.

Prima Donna. Makes large, handsome plants, with a profusion of light rose-pink flowers and shining green foliage. Extra fine. Pkt. 25 cts.

Gracilis Luminosa. Large bright scarlet flowers. Pkt. 25 cts.

Mixed Everblooming Varieties. Pkt. 25 cts.

CALENDULA. The Calendulas or Pot Marigolds are among the brightest and easiest to grow of all garden annuals. They prefer a sunny location but will thrive on any soil and bloom continuously from early summer until late fall. Sow the seed during April or May and thin the plants to 8 to 10 inches.

Chrysanthra or Sunshine. Superb new variety with rich, gleaming yellow flowers like quilled Chrysanthemums. The rays are long and slender, curving inward. A striking novelty in this favorite cutting-flower. Pkt. 15 cts.

Orange King. Extra-select Florist Strain. Large, double flowers of deep glowing orange. A favorite for cut-flowers. Pkt. 10 cts., 1/2 oz. 60 cts., oz. \$1.



Calendula chrysanthra

Lemon Queen. Like Orange King but the flowers are clear lemon-yellow. Pkt. 10 cts., 1/2 oz. 25 cts., oz. 45 cts.

Double Mixed. Pkt. 10 cts., 1/2 oz. 15 cts., oz. 25 cts.

CALLIOPSIS. Hardy, easy to grow, and free-blooming, Calliopsis is a favorite for cutting. The tall forms are good for mass planting, while the dwarf varieties are especially nice for edging beds or for planting in pots. Sow in April or May and thin to stand 6 to 8 inches apart.

Golden Wave (Drummondii). Medium tall, vigorous and bushy, covered with bright golden yellow flowers with brown centers. Pkt. 10 cts., 1/2 oz. 25 cts., oz. 45 cts.

Dwarf Varieties, Mixed. Beautiful, compact plants about 8 inches high, with flowers in all shades of yellow, yellow with bronze markings, deep crimson, brown, and various combinations. Pkt. 10 cts., 1/2 oz. 25 cts., oz. 45 cts.

CANARY BIRD VINE. A quick-growing, slender annual vine with light green, fern-like leaves and brilliant yellow flowers which some people imagine resemble a bird with half-extended wings. Sow late in May. Pkt. 10 cts., 1/2 oz. 25 cts., oz. 45 cts.

CARDINAL CLIMBER. A slender, quick-growing annual vine with exceedingly ornamental, deeply cut leaves, and small, star-shaped flowers of a most brilliant cardinal-red color, borne in the greatest profusion. Sow after the weather and soil are warm. It is advisable to soak the seed for several hours before sowing. Pkt. 15 cts.

CANDYTUFT. One of the best of all low-growing annuals for beds and edging. Sow the seed early in the spring, and when the seedlings are strong enough, thin them to stand 6 to 8 inches apart. Candytuft grows best in a rich moist soil, blooming profusely for a long season.

Giant Empress. Undoubtedly the finest of the Candytufts, bearing quantities of extra-large, pure white flower-trusses. Nice for cutting as well as bedding. Pkt. 5 cts., 1/2 oz. 25 cts., oz. 45 cts.

Umbellata. Charming bedding or edging plants which bloom quickly from seed. Sow where they are to bloom and thin to 6 inches apart. The flowers are in flat clusters and are produced for many weeks. **Lilac, Rose, and Crimson.** Pkt. 10 cts., 1/2 oz. 25 cts., oz. 45 cts.

Perennial Iberis gibraltarica Hybrids. A compact form with lilac flowers. Pkt. 10 cts.

Perennial or Evergreen (Iberis sempervirens). Bears pure white flowers in the spring, and the leaves are dark glossy green the year round. Fine for edging the perennial borders. Pkt. 10 cts.

CANNAS. Although the fine orchid-flowered varieties do not reproduce true from seed and must, therefore, be grown from the roots (for which see page 47), many people prefer to grow the old-fashioned Cannas from seed.

Large-flowered Dwarf Mixed. Saved from brilliantly colored varieties, including red, yellow, and various striking combinations. Pkt. 10 cts., 1/2 oz. 30 cts., oz. 50 cts.

CANTERBURY BELLS. The Campanulas, or Canterbury Bells, are biennials, producing their best crop of flowers the second season. They are most effective massed in the borders and are sometimes grown in large pots. Sow the seed any time from early June to August, and protect the plants with straw or leaves over winter.

Single Varieties, Mixed Colors. The true "Canterbury Bells." White, Pink, and Blue. Pkt. 10 cts., 1/2 oz. 30 cts., oz. 50 cts.

Cup-and-Saucer Bells. A very pretty double form. White, Pink, and Blue, mixed. Pkt. 15 cts., 1/2 oz. \$1.25, oz. \$2.

CERASTIUM tomentosum. Snow-in-Summer. A perennial rock-plant with white foliage, and myriads of starry white flowers in early summer. Grows fine every year. Pkt. 10 cts., 1/2 oz. 60 cts., oz. \$1.

CHRYSANTHEMUMS. Annual Chrysanthemums thrive in any sunny situation and bloom very freely.

Carinatum hybridum. Large semi-double, daisy-like flowers in many brilliant colors. Pkt. 10 cts., 1/2 oz. 40 cts., oz. 75 cts.



Clarkia



Centaurea cyanus



Chinese Lantern Plant

CARNATIONS, MARGUERITE. An improved, large-flowering strain of "Pinks," blooming in three to four months after sowing. The flowers are very fragrant, and last for a long time when cut. The plants are perennial. Sow early in May.

Mixed Colors. Pink, White, Scarlet, Yellow, and Variegated. Pkt. 10 cts., 1/2 oz. 75 cts., oz. \$1.25.

ENFANT DE NICE. This annual Carnation has gained favor rapidly since it was introduced several years ago. The plants are robust and upright, with long, strong stems, bearing flowers 2 1/2 to 3 inches in diameter. It is the last word in this popular flower. **Mixed Colors.** Pkt. 25 cts.

CASTOR BEAN. Extremely large annual plants that may be used for ornamental hedges, for the center of beds of cannas, and as individual specimens wherever a tropical effect is wanted. Sow in May.

Zanzibarensis. A giant strain with leaves often 2 to 2 1/2 feet across. The plants sometimes grow 12 feet high and nearly as broad. Dark green, bronze, or reddish foliage. Pkt. 5 cts., 1/2 oz. 10 cts., oz. 15 cts.

Finest Varieties Mixed. Many different types varying in color of leaf, stalks, fruit, etc. All large. Fine for tropical effect. Pkt. 5 cts., 1/2 oz. 10 cts., oz. 15 cts.

CENTAUREA. A family of very popular and easy-to-grow flowers.

CYANUS. Familiarly known as "Cornflower," "Ragged Sailor," or "Bachelor's Button." About 1 1/2 feet tall, thriving in almost any situation and blooming freely for a long season.

Double Blue. The finest strain of the favorite deep blue Cornflower. Pkt. 10 cts., 1/2 oz. 30 cts., oz. 50 cts.

Mixed Colors. Pink, White, Blue, and Variegated. Pkt. 10 cts., 1/2 oz. 25 cts., oz. 45 cts.

GYMNOCARPA (Dusty Miller). Grows but a foot high, is excellent for edging beds and borders, and will thrive in any location or soil. Foliage is fern-like and of silvery gray color. Flowers white. Pkt. 10 cts., 1/2 oz. 60 cts., oz. \$1.

CENTAUREA IMPERIALIS. The Giant Sweet Sultan, one of the largest of the Centaurea family and the finest for cut-flowers. The large blooms are borne on long stems and are very fragrant.

Mixed Colors. White, Pink, Lavender, Mauve, Purple, Rose, etc. Pkt. 10 cts., 1/2 oz. 30 cts., oz. 50 cts.

CHINESE LANTERN PLANT

(*Physalis Franchetii*). A perennial easily raised from seed. Flowers yellow with dark center which turn bright red when ripe and resemble Chinese lanterns. Pkt. 15 cts., 1/2 oz. 75 cts., oz. \$1.25.

CHINESE WOOLFLOWER

(*Celosia Childsii*). An easily grown annual that blooms continuously over a long season, producing a profusion of massive crimson-scarlet, wool-like flowers. None of the blooms fade until killed by frost, so that the whole plant is a mass of glowing color, resembling an enormous bouquet. Height 3 feet. Sow seed outdoors after danger of frost is past. Pkt. 10 cts.

CLARKIA. An attractive annual that does well in partially shaded as well as sunny spots, making loose, shrubby plants 2 to 3 feet high, covered with dainty flowers. Nice for cutting.

Improved Double, Mixed. A fine strain, including White, Pink, Salmon, Scarlet, etc. Pkt. 10 cts., 1/2 oz. 30 cts., oz. 50 cts.

COBÆA Scandens. An annual climber that grows quickly and makes a good screen of foliage. The flowers are large and bell-shaped, purple in color. Prefers a moist soil and should not be sown until mid-May. Sometimes called "Cathedral Bells." Pkt. 10 cts., 1/2 oz. 30 cts., oz. 50 cts.

COCKSCOMB. The Crested Celosias, or Cockscombs, produce large, brilliantly colored, comb-like heads. They make gorgeous beds and are useful also for borders where bright colors and mass effect are desired. The seed should be started indoors in April or sown in well-prepared soil outdoors late in May.

Finest Mixed Colors. Showy heads of Yellow, Orange, Scarlet, and Purplish Crimson. Pkt. 10 cts., 1/2 oz. 60 cts., oz. \$1.

COLEUS. Popular bedding plants grown for their ornamental variegated foliage. They are easily raised from seed carefully sown on fine soil in boxes indoors or in the greenhouse, and transplanted to the open late in May.

Rainbow Hybrids. A beautifully colored strain. Pkt. 25 cts.

COREOPSIS. No flower blooms more abundantly or for a longer season than Coreopsis. Its long stems and bright golden yellow color make it an ideal cut-flower as well as a showy addition to the hardy border. It is easily grown from seed sown any time during late spring or summer and, being perfectly hardy, the plants require no protection in winter and will live for years. Pkt. 10 cts., 1/2 oz. 30 cts., oz. 50 cts.

CYPRESS VINE. A graceful, slender annual climber with very finely cut foliage and bright little flowers which are produced in the greatest profusion. A warm, sunny spot and light, rich soil is preferred. Sow the seed after all danger from frost is past, first soaking it for several hours in warm water to ensure quick germination.

Mixed Colors. Flowers brilliant scarlet and pure white. Pkt. 10 cts., 1/2 oz. 30 cts., oz. 50 cts.



Carnation



Cosmos



Long-spurred Aquilegia



Shasta Daisies

COLUMBINE. The Aquilegias, or Columbines are favorite border perennials, blooming in May and June and thriving best in moist, partially shaded spots. The seed may be sown any time from May to August; the plants require no protection over winter.

Long-spurred Hybrids. These are the finest of the Columbines, producing large flowers in a great variety of delightful colors. Pkt. 10c., $\frac{1}{2}$ oz. \$1.25, oz. \$2.

COSMOS. The free-blooming habit, graceful flowers, and delicately cut foliage make the Cosmos one of the most popular and satisfactory of flowers for late summer and fall use. The plants grow very tall and slender, and each plant will often produce over a hundred flowers. They should not be planted in a spot where they will be in shade during the greater part of the day. Practically any soil will grow good Cosmos. If possible, start the seed indoors in early March, as a long growing season is required. Otherwise, sow in the garden about May 1, and thin the plants to stand about 8 inches apart.

Mammoth Lady Lenox. One of the finest varieties of Cosmos ever produced. The blooms are of enormous size and of a most attractive shade of shell-pink. Tall-growing, blooming from early September until killed by frost. Pkt. 10 cts., $\frac{1}{2}$ oz. 25 cts., oz. 45 cts.

Mammoth Fine Mixed. Red, Pink, and White flowers of the giant, late-blooming type. Pkt. 10 cts., $\frac{1}{2}$ oz. 25 cts., oz. 45 cts.

Early-flowering, Mixed. A large-flowered strain which commences to bloom a month earlier than the preceding; the best to use for late sowings outdoors. The colors are White, Pink, Red, and Crimson. Pkt. 10 cts., $\frac{1}{2}$ oz. 25 cts., oz. 45 cts.

Double-crested, Late-flowering. After many years of selection a double-flowering form of Cosmos has been secured, and while the flowers vary in degree of doubleness, all are beautiful. We offer the following named sorts: **Pink Beauty** (soft rosy pink), **Crimson King** (deep rose-crimson), **White Queen** (pure white), pkt. 15 cts., $\frac{1}{2}$ oz. \$1.75, oz. \$3.

Double-crested, Finest Mixed (all colors), pkt. 15 cts., $\frac{1}{2}$ oz. \$1.25, oz. \$2.

DAHLIAS. It is quite easy to raise Dahlias from seed, provided it is started early in the spring in the hotbed or in a warm window in the house. Set the plants out late in May in a sunny location, spacing them a foot or more apart.

Double Varieties, Mixed. Composed of seed saved from some of the best named sorts. Fine new varieties are produced from seed, no two coming exactly alike in form and color. Pkt. 10 cts., $\frac{1}{2}$ oz. 85 cts., oz. \$1.50.

DAISY, AFRICAN ORANGE. A very bright and thrifty annual for bedding, growing well even on poor soil. The plants are about 8 inches high, bushy and spreading, producing

quantities of flowers in various shades and combinations of yellow and orange. Pkt. 10 cts., $\frac{1}{2}$ oz. 60 cts., oz. \$1.

ENGLISH DAISY. A hardy biennial very useful for low beds and borders, thriving in partial shade as well as sun and preferring a fairly moist spot. If the seed is sown very early in the spring and plants thinned to stand about 6 inches apart, they will bloom the first summer. For very early bloom, sow in a hotbed or coldframe in January or February. Give the plants light protection over winter.

Double Varieties, Mixed. Large, deep, double flowers ranging from white to dark crimson. Fine imported seed. Pkt. 10 cts., $\frac{1}{2}$ oz. \$1, oz. \$1.75.

SHASTA DAISY. Produced by Luther Burbank and recently selected as the official flower of the American Legion, the Shasta Daisy is one of the loveliest of our easily grown hardy perennials. The flowers measure $2\frac{1}{4}$ to 4 inches across, white with yellow center, resembling a giant field daisy. The stems are stiff and strong; fine for cutting, lasting for two weeks or longer in water. Pkt. 10 cts., $\frac{1}{2}$ oz. \$1.50, oz. \$2.75.



Didiscus cærulea

DIDISCUS Cærulea. Blue Lace Flower. Exquisite, lacelike flower-heads of dainty azure-blue, gracefully borne on long stems. Sow seed in March in hotbed and outdoors in May and June and you will have lovely blooms to cut until frost. Pkt. 10 cts., $\frac{1}{2}$ oz. 60 cts., oz. \$1.

EUPHORBIA. Showy plants growing about 2 feet high, with ornamental foliage, easily grown from seed which should be sown during May. The plants may be thinned to stand about 6 inches apart.

Variegata. "Snow-on-the-Mountain." Leaves deep green, bordered and marked with white. Pkt. 10 cts., $\frac{1}{2}$ oz. 25 cts., oz. 45 cts.

DELPHINIUM. The finest of blue flowers for the hardy border are the Delphiniums, or Perennial Larkspurs. They send up spikes, 4 to 5 feet tall, blooming all summer. Sow the seed in May or June and transplant about 1 foot apart in early September. Perfectly hardy.

Belladonna. Long, loose spikes of delicate light blue flowers, of supreme value for cutting, and an excellent garden plant. Belladonna blooms almost continuously if the flower-spikes are kept cut. Pkt. 25 cts., ½oz. \$1.50, oz. \$2.75.

Bellamosa. This is a taller, straighter plant than Belladonna, and the flowers are rich clear blue, several shades darker. Very striking and handsome. Pkt. 25 cts., ½oz. \$1.75, oz. \$3.

Wrexham (Hollyhock Strain). Sturdy plants producing conical spikes of flowers 2 inches across or more, and 2½ to 3 feet long. The colors range from clear light blues and lavenders to shades of deep blue, purple, and mauve. This is the supreme development in Delphiniums to date, and has become very popular. Selected seedlings are sometimes sold at extremely fancy prices, but plants just as good may be raised from this good strain of seed. Pkt. 25 cts., ½oz. \$2.25, oz. \$4.

Kelway's Gold Medal Hybrids. A famous English strain of great size and vigor, producing flowers in all shades of blue. Pkt. 25 cts., ½oz. 75 cts., oz. \$1.25.



Eschscholtzia

ESCHSCHOLTZIA. Better known as "California Poppies," these hardy little annuals make very bright beds and bloom from June until frost. The foliage is bluish green in color and delicately cut; the flowers resemble single Poppies but come in a greater variety of colors. The plants are bushy and grow about 8 inches tall.

Mixed Colors. Deep golden yellow, bright orange, primrose, rich crimson, white, rose and various other shades and combinations. Pkt. 10 cts., ½oz. 25 cts., oz. 45 cts.

FORGET-ME-NOT. The familiar blue Forget-me-not, or *Myosotis*, is a biennial but it will bloom the first summer from seed sown in early spring. If early spring flowers are wanted, sow in July and transplant the young plants to their permanent

bed about the middle of September. A partially shaded location and moist soil give best results. Pkt. 10 cts., ½oz. 85 cts., oz. \$1.50.

FOUR O'CLOCK. Four o'Clocks, or old-fashioned "Marvel of Peru," make most effective beds and annual hedges. The plants grow about 2 feet tall, broad and bushy, with lustrous dark green leaves and quantities of fragrant flowers which open late in the afternoon and remain open all night, closing again the next morning. Sow in April or early May and thin plants to stand about 1 foot apart. Four o'Clocks will grow vigorously in any sunny spot.

Mixed Colors. Flowers White, Yellow, Lilac, Pink, and all shades of Red, some beautifully striped and splashed. Pkt. 5c., ½oz. 10c., oz. 15c., ¼lb. 50c., lb. \$1.50.

FOXGLOVE. The tall spikes of Digitalis, or Foxglove, with their long, thimble-shaped flowers, are most effective massed in the borders with a background of shrubbery or among lower-growing flowers. The plants send up stems 3 to 4 feet tall, the upper part crowded with blossoms. Immediately after blooming, remove the flower-stalk and some of the larger leaves at the base; this will result in a number of new plants which start from the old crown and will produce flowers the next year. Sow the seed in late May or June and transplant in the fall, spacing the plants 10 to 12 inches apart.

Mixed Colors. White, Pink, and Purple flowers, spotted with deep crimson or chocolate in the throat. Pkt. 10 cts., ½oz. 30 cts., oz. 50 cts.

GAILLARDIA. The Gaillardias, or "Blanket Flowers," are extra-good bedding plants. They are vigorous and bushy, producing their large, showy blooms all summer long.

The Dazzler. Very large, wheel-like flowers of blazing orange-scarlet, an intense, pure color, illumined by a brilliant yellow edge at the tip of each ray or petal. This is the largest and handsomest of the "red" Gaillardias. Stems are long, stout, and hold up the flowers in all weathers. Splendid for cutting. Pkt. 25 cts., ½oz. \$1.25, oz. \$2.

Grandiflora. A perennial variety which, if given a little protection over winter, will live in the garden for years. The flowers are large and very bright, coming in orange-yellow, scarlet, and crimson, and various combinations of red and yellow. Desirable for cutting as well as garden display. Sow seed in May and space the plants about 1 foot apart. Pkt. 10 cts., ½oz. 30 cts., oz. 50 cts.

GLOBE AMARANTH. The Gomphrena, or Globe Amaranth, is one of the "straw flowers" or "everlastings" so popular for winter bouquets. The plants grow 2 to 3 feet tall, with globe-shaped flowers which may be cut and dried in their natural colors. Sow in April or May and thin to about 8 inches apart.

Mixed Colors. White, Pink, and Purplish Crimson. Pkt. 10 cts., ½oz. 30 cts., oz. 50 cts.



English Daisy. See page 34



Gaillardia grandiflora



Four o'Clocks



Helichrysum



Kochia. See page 37



Hollyhocks

GEUM, Mrs. Bradshaw. Handsome, fairly dwarf border plant with attractive foliage, and double scarlet flowers with crimped and ruffled petals, like little roses, on 2-foot stems. Early summer. Pkt. 10 cts., $\frac{1}{2}$ oz. 85 cts., oz. \$1.50.

Lady Stratheden. Practically the same plant as Mrs. Bradshaw, except that the flowers are shining golden yellow. The petals have the same interesting crimped or crêpe paper effect. Pkt. 10 cts., $\frac{1}{2}$ oz. 85 cts., oz. \$1.50.

GERANIUM. Great favorites for bedding and window-boxes. Seed saved from the choicest varieties. Pkt. 25 cts., $\frac{1}{2}$ oz. \$1.75, oz. \$3.

GODETIA. These are very brilliant, free-flowering annuals that seem to prefer a rather poor, heavy soil. Sow the seed in April and thin to stand about 10 inches apart. The plants are bushy, with attractive foliage, and the flowers are quite large, somewhat resembling single hollyhocks. Gardeners who have not grown Godetias should try them, as they make most attractive beds and borders.

Dwarf Compact, Mixed. The most improved type, with flowers White, Pink, Red, Deep Crimson, and Red and White. Pkt. 10 cts., $\frac{1}{2}$ oz. 40 cts., oz. 75 cts.

GOURDS. Some of the Gourds are ornamental in fruit as well as foliage and are excellent for covering old fences or stumps and trailing on trellises and arbors; other kinds produce fruit useful in various ways; and all are interesting to grow. Sow the latter part of May.

Dish-Rag. Sometimes called Sponge Gourd. The inside of the ripe fruit is like a tough, fibrous cloth or sponge. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 60 cts.

Dipper. The ripe fruits, cut away and cleaned out, make very serviceable dipper. They are often seen in the country, hanging by "the old oaken bucket." Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 60 cts.

Ornamental Varieties, Mixed. Includes a great number of interesting and diverse forms of Gourd. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 60 cts.

GYPSOPHILA. The annual Gypsophila, or "Baby's breath," is largely used in making up bouquets and is a most attractive adjunct to the cut-flower garden. The plants are large and bushy, with feathery foliage and little star-shaped flowers, growing thriftily in any garden. Sow in April or May and thin to 1 foot.

Elegans, White. Pure white flowers. Pkt. 10 cts., $\frac{1}{2}$ oz. 30 cts., oz. 50 cts.

HELIANTHEMUM mutabile. Dwarf Sun Rose. Rock plant of shrubby habit, growing a foot or more high and 2 to 3 feet across. Foliage evergreen. Flowers pink, yellow, orange, white, and scarlet. Pkt. 10 cts., $\frac{1}{2}$ oz. 60 cts., oz. \$1.

HELICHRYSUM. This is the best of the "Straw Flowers," exceedingly popular for its bright, lasting colors. The flowers are borne on

long stems and are often 2 to 3 inches in diameter. Sow in April or May and thin to 10 inches apart. To preserve the flowers for permanent bouquets, pick them when half opened and hang them by the stems, head down, to dry in a shady place.

Monstrosum, Mixed. Giant, double flowers, in an assortment of colors, including Reds, Yellow, Orange, Carmine, Violet, etc. Pkt. 10 cts., $\frac{1}{2}$ oz. 30 cts., oz. 50 cts.

HELIOTROPE. The old favorite, prized for its delightful fragrance. It is a tender perennial that can be grown in pots or in the garden. Start the seed indoors in March and transplant to the garden late in May, or sow outdoors in a finely prepared seed-bed after the soil and weather are warm. The plants may be cut back in September, potted up and taken in the house for winter.

Extra-Fine Mixture of Dwarf Varieties. Pkt. 15 cts., $\frac{1}{2}$ oz. \$1.75, oz. \$3.

HIBISCUS, Finest Mixed. Shrubby perennials 4 to 6 feet tall with large foliage and immense, funnel-shaped flowers 6 to 12 inches across, in shades of Pink, White, Crimson, and Rose in midsummer. Pkt. 10 cts., $\frac{1}{2}$ oz. 30 cts., oz. 50 cts.

HOLLYHOCK. The Hollyhocks need no description. Wherever tall-growing plants can be used they are wonderfully effective, with a charm all their own. They are biennials or perennials and the seed is best sown in July or August for blooming the following summer. The plants should be given a light protection of leaves the first winter. Almost any soil will do, but they bloom most freely and continuously on a deep, loamy soil and in a sunny situation.

Finest Double Varieties, Mixed. This extra-fine strain grows 5 feet tall and produces large, double flowers in White, Yellow, all shades of Pink and Red, and Maroon. Pkt. 10 cts., $\frac{1}{2}$ oz. 60 cts., oz. \$1.

JAPANESE HOP. A very rapid-growing annual vine which, on account of its dense, attractive foliage, is valuable for porch-screens and arbors. It is not particular as to soil and will stand hot, dry weather. The growth is thicker and the leaves broader than the common hop of commerce.

Green-leaved. The ordinary form of Japanese Hop. Pkt. 10 cts., $\frac{1}{2}$ oz. 15 cts., oz. 25 cts.

Variegated-leaved. Leaves splashed with green on white ground. Pkt. 10 cts., $\frac{1}{2}$ oz. 15 cts., oz. 25 cts.

HUNNEMANNIA. A very desirable flower of the poppy family, sometimes called Giant Yellow Tulip Poppy. The plants are bushy and grow $1\frac{1}{2}$ to 2 feet tall, with bluish green, finely cut leaves and many bright yellow flowers, 3 to 4 inches across, blooming all summer. Sow the seed early in the spring, and thin to stand at least $1\frac{1}{2}$ feet apart. Pkt. 10 cts., $\frac{1}{2}$ oz. 30 cts., oz. 50 cts.

HYACINTH BEAN (*Dolichos Lablab*).

A very pretty annual climber which quickly grows to a height of 8 to 10 feet and bears quantities of clustered flowers which resemble pea blossoms, followed by lustrous purple pods. Ornamental and useful wherever a dense shade is not needed. Sow the seed in late May, preferably in light, dry soil.

Mixed Colors. White and Deep Lavender. Pkt. 10 cts., 1/2 oz. 30 cts., oz. 50 cts.

JOB'S TEARS.

An ornamental grass which grows 2 to 3 feet high and bears large, ivory-white seeds from which it gets its name. The children make necklaces from the hard seeds. Pkt. 10 cts., 1/2 oz. 15 cts., oz. 25 cts.

KOCHIA.

A very attractive and symmetrical annual hedge plant, also known as "Summer Cypress" and "Burning Bush." It grows about 2 feet high, making beautifully rounded bushes which resemble clipped evergreens. During the summer the foliage is bright, light green but in the fall the color changes and, in the course of a week or two, the whole plant is a ball of crimson. It will grow on almost any soil but thrives best in full sun. Sow the seed during the latter part of May and thin or transplant the plant when a few inches high to stand about 1 1/2 feet apart. Pkt. 10 cts., 1/2 oz. 25 cts., oz. 45 cts.

LOBELIA.

Dainty little plants, popular for porch-boxes, vases, and low beds. They should have a deep, moist soil and the seed should be started indoors in February or March and the plants set out in May.

Crystal Palace Compacta. Rich dark blue flowers; dark green foliage; dwarf and compact in growth. Pkt. 10 cts., 1/2 oz. \$2.25, oz. \$4.

LARKSPUR.

Favorite, easy-to-grow annuals, producing their tall spikes very freely for several weeks during summer. They are most effective planted in the border in groups among lower-growing flowers. Sow the seed in April and thin or transplant to stand 8 to 10 inches apart.

Miss California. (New.) Tall plants with double flowers of brilliant rose-pink. A less harsh shade than Carmine King—but strong enough to attract much favorable notice. Pkt. 25 cts.

Carmine King. (New.) A compact plant with spikes 30 inches high, thickly studded with double flowers of deep, glowing pink with a fiery sheen almost scarlet. A vivid, showy variety. Pkt. 25 cts.

Blue Spire. Long, spire-like stems, closely set with single, clear violet-blue flowers. Very graceful, and a fine blue shade. Pkt. 25 cts.

Double Dwarf Rocket, Mixed. The plants of this free-blooming dwarf strain grow about 1 1/2 feet tall. The colors include Light and Dark Blue, White, Pink, Carmine, and Violet. Pkt. 10 cts., 1/2 oz. 30 cts., oz. 50 cts.

Tall Double Stock-flowered, Mixed. Plants 3 feet tall, with candelabra-like branches and long spikes closely set with large, double flowers. Light and Dark Blue, White, Pink, Carmine, and Violet. Pkt. 10 cts., 1/2 oz. 30 cts., oz. 50 cts.

LILIES (*Lilium*).

Everybody likes Lilies, but few realize how easily some of the finest varieties can be grown from seed.

Regale. Most popular and easiest to grow of all Lilies, flowering abundantly within 18 months from seed. The plants are 2 to 4 feet high, bearing clusters of 7 to 15 enormous, trumpet-shaped, fragrant flowers at the top. They are purple-stained on the outside of the bud, opening to a white bloom of inexpressible beauty and purity, with a rich yellow glow in the center. Perfectly hardy. Pkt. 25 cts.

Tenuifolium. The Coral Lily of Siberia. Grows 2 feet high, with scarlet flowers in a big spray at the top. The recurved petals have an exquisite waxy texture. It is a wonderful cut-flower and splendid plant for the rock-garden. The seed can be sown in the open where the soil is mellow, or in a mixture of part sand, part leaf-mold, and part humus. It germinates quickly. Most of the seedlings will bloom the second year; some in the first. One of the earliest Lilies to flower. Hardy. Pkt. 25 cts., 1/2 oz. \$1.75, oz. \$3.

LINARIA macedonica, Excelsior Hybrids, Mixed.

Slender little plants a foot high, bearing dainty, miniature Snapdragons of pink and purple. Excellent for edging or covering dead tops of spring-flowering bulbs in the rock-garden. Pkt. 10 cts., 1/2 oz. 30 cts., oz. 50 cts.

LINUM, Perennial Blue Flax.

Erect border plant 2 to 4 feet high, with long, straight stems clothed with gray-green foliage, and spangled over throughout most of the summer with powder-blue flowers of great delicacy and beauty which are open only in sunshine. Pkt. 10 cts., 1/2 oz. 30 cts., oz. 50 cts.

LUPINS.

The Lupins, or "Sun-dials," as they are sometimes called, are fine for planting in moist or partly shaded spots, although they will not thrive in a sour soil. They make bushy plants with very attractive leaves and long spikes, closely set with blossoms. Give them plenty of lime, wood-ashes, bonemeal, or other soil-sweetening fertilizers.

Polyphyllus. A hardy perennial form which grows 2 1/2 to 3 feet tall, and comes in white, pink, and lavender-blue. Sow in May or June and thin to 1 1/2 feet apart. Pkt. 10 cts., 1/2 oz. 30 cts., oz. 50 cts.

MESEMBRYANTHEMUM

Crystallinum (Ice Plant). The Ice Plant is a low-growing annual with tender stems and leaves, portions of which are transparent and resemble little icicles. It is interesting and valuable for basket and vase-planting, and for edging beds of taller-growing plants. Sow the seed after all danger from frost is past and thin or transplant to 8 to 10 inches apart. Pkt. 10 cts., 1/2 oz. 30 cts., oz. 50 cts.

Tricolor. A low-growing plant for dry, sunny places. Flowers brilliant red and white, with a black center. Very beautiful when in full bloom. Pkt. 25 cts.



African Marigold. See page 38.



Geum, Mrs. Bradshaw. See page 36.



Perennial Lupins



Guinea Gold Marigold

MARIGOLD. Vigorous, free-blooming annuals, thriving on any soil but preferring plenty of sunlight. They are prized for their brightly colored flowers which are set off by handsome, very dark green foliage. The African Marigolds grow about 2 feet tall with immense globular blooms, while the French kinds are only about 10 inches high with smaller flowers but more of them.

African Orange Prince. Very large and double; deep glowing orange. Pkt. 10 cts., $\frac{1}{2}$ oz. 35 cts., oz. 60 cts.

African Lemon Queen. A companion to Orange Prince, but clear lemon-yellow. These two varieties, planted on rich soil, produce enormous flowers. Pkt. 10 cts., $\frac{1}{2}$ oz. 35 cts., oz. 60 cts.

African Double, Mixed. Shades of Orange and Yellow. Pkt. 10 cts., $\frac{1}{2}$ oz. 35 cts., oz. 60 cts.

French Dwarf Single, Legion of Honor. Bushy. Flowers gold and brown. Pkt. 10 cts., $\frac{1}{2}$ oz. 30 cts., oz. 50 cts.

French Dwarf, Mixed Colors. Double flowers; Orange and Yellow variously striped and marked with reddish brown. Splendid for edging beds. Pkt. 10 cts., $\frac{1}{2}$ oz. 30 cts., oz. 50 cts.

Guinea Gold. Superb variety of African Marigold, with huge, double, ruffled flowers of looser and more graceful form than the older, tight, globular varieties. A handsome cut-flower of pure deep golden yellow, fragrant and long-stemmed. The greatest improvement this flower has ever known. Pkt. 15 cts., $\frac{1}{2}$ oz. 60 cts., oz. \$1.

MIGNONETTE. Highly valued for its distinct fragrance.

Sow the seed about May 1. By shading the plants during midsummer, the season of bloom may be prolonged until late fall.

Common Sweet. Small flowers but very free-blooming and extremely sweet-scented. Pkt. 5 cts., $\frac{1}{2}$ oz. 10 cts., oz. 15c.

Giant Machet. An improved florists' strain with giant spikes of reddish green florets. Pkt. 10 cts., $\frac{1}{2}$ oz. 30 cts., oz. 50 cts.

MIMULUS. Various known as "Musk Plant" and "Monkey Flower." They are dwarf, inclined to trail, and profuse in bloom, the flowers bearing a resemblance to a mask or face. Nice for baskets and vases.

Moschatus. Musk-scented foliage and small yellow flowers. Pkt. 10 cts., $\frac{1}{2}$ oz. \$5, oz. \$9.

MOMORDICA. Vigorous climbing vines with ornamental fruits, and foliage that is dense enough to make a pleasant shade.

Charantia (Balsam Pear). Grown by the Chinese under the name of "La-Kawa." The pear-shaped fruits are edible and are usually prepared by boiling before they are fully ripened. Pkt. 10 cts., $\frac{1}{2}$ oz. 15 cts., oz. 25 cts.

Balsamina (Balsam Apple). More slender and graceful than the Balsam Pear. Flowers yellow, with dark centers; fruits orange, round and about 3 inches in diameter, sometimes dried and used in medicinal preparations. Pkt. 10 cts., $\frac{1}{2}$ oz. 15 cts., oz. 25 cts.

MOONFLOWER. Quick-growing, slender vines with big, round blossoms that open in the evening and are closed during the day. They succeed best if the seed is sown indoors. Do not sow outdoors or set out plants until all danger from frost is past.

Grandiflora Alba. Clear white flowers, 4 to 5 inches in diameter. Pkt. 10 cts., $\frac{1}{2}$ oz. 40 cts., oz. 75 cts.

Heavenly Blue. Flowers of a most attractive shade of sky-blue, shaded with rose at the edges. Sometimes grown in pots. Pkt. 10 cts., $\frac{1}{2}$ oz. 60 cts., oz. \$1.

MORNING-GLORIES. Fine for covering fences and trellises on account of their rapid, luxuriant growth. They bloom freely all summer. Sow in late April or May.

Fine Mixed. The common Morning-Glories in a splendid assortment of colors, including Light and Dark Blue, Rose, Bright Red, Violet, and Variegated. Pkt. 5 cts., oz. 10 cts., $\frac{1}{4}$ lb. 25 cts., lb. 75 cts.

Giant Japanese. A strain of Morning-Glories with extra-large flowers of unusually fine colors. White, Pink, Mauve, Chocolate, Purple and various other attractive colors. Pkt. 10 cts., oz. 20 cts., $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

MOURNING BRIDE. It is a pity this flower does not have a more pleasing name, for it is one of the finest annuals for cutting. It will grow in almost any situation, attaining a height of 1½ to 2 feet and blooming for a long season. The flowers are carried on fine long stems.

Mixed Colors. White, Pink, Scarlet, Crimson, Lavender, and Blackish Maroon. Pkt. 10 cts., $\frac{1}{2}$ oz. 60 cts., oz. \$1.

NASTURTIUMS. We know of no flowers that are easier to grow or give more general satisfaction than Nasturtiums. They will thrive on any soil—in fact, they seem to bloom most freely on soil that is only moderately good—and they flower all summer long in all kinds of weather. Sow the seed in April, scattering it sparingly so that no thinning will be required, in drills about an inch deep.

Golden Glean. Compact plants 12 to 18 inches high, with clear, golden yellow, double flowers. One of the most unusual things among recent novelties which has attracted notice in every quarter. In addition to the remarkable doubling of the bloom, the flowers possess a delicate scent which lacks the usual coarseness of the Nasturtium odor. We believe this to be the outstanding American contribution to the annual list of this year. Pkt. 15 cts., oz. 60 cts., $\frac{1}{4}$ lb. \$2, lb. \$7.

Dwarf Varieties, Fine Mixed Colors. The dwarf or "Tom Thumb" Nasturtiums are fine for beds and edging, any place where masses of color are desired. The plants grow 10 to 12 inches high, rounded and bushy, and covered with flowers from June until frost. The colors range from Straw-Yellow to Deep Orange and from Delicate Rose to Dark Crimson and Maroon, as well as Red and Yellow Bicolors. Pkt. 5c., oz. 10c., $\frac{1}{4}$ lb. 30c., lb. \$1.

Tall Varieties, Fine Mixed Colors. The tall or climbing Nasturtiums are useful for covering fences and low trellises, or may be allowed to trail over stumps and rockwork. The flowers and leaves are larger than in the dwarf type and the colors are, if possible, even more varied and brilliant. Pkt. 5 cts., oz. 10 cts., $\frac{1}{4}$ lb. 30 cts., lb. \$1.

NICOTIANA. Fine annuals for the tall border, thriving best on a deep, rich soil. They grow about 2½ feet high, with large, attractive foliage at the base and clusters of delicately fragrant, trumpet-shaped flowers on long stems. It is best to start the seed indoors in March as the young plants are quite tender, but the seed may be sown in fine soil outdoors after all danger from frost is past. Often called "Sweet-scented" or "Flowering Tobacco."

Affinis. A vigorous form which bears quantities of fragrant, bluish-white blossoms that open during the early morning and evening. Easy to grow from seed. Pkt. 10 cts., $\frac{1}{2}$ oz. 25 cts., oz. 45 cts.

Sanderæ Hybrids. The flowers are larger than the preceding and come in white and shades of pink and red. Pkt. 10 cts., $\frac{1}{2}$ oz. 40 cts., oz. 75 cts.

NIGELLA. A very interesting and pretty annual, nice for bedding and cutting, easily and quickly grown from seed in any sunny spot. It has finely cut foliage and a curious network of bracts about the flowers, which are followed by odd seed-pods. Sow the seed in April or May and thin to stand 8 inches apart. Grows a foot high.

Blue (Miss Jekyll). Fine double azure-blue. Pkt. 10 cts., $\frac{1}{2}$ oz. 30 cts., oz. 50 cts.

White. Flowers pure white. Double. Pkt. 10 cts., $\frac{1}{2}$ oz. 30 cts., oz. 50 cts.



Cassier's Giant Pansy

PANSIES

To grow the finest and largest Pansies, remember plants thrive best in cool weather; sow seed at a time that will bring them into bloom very early in the spring or fall. Without a doubt, the best results are secured by sowing in late July or August and protecting the young plants over winter with a covering of strawy manure or a deep blanket of leaves. They will then be ready to begin blooming as soon as the weather opens up in the spring and will continue to flower until hot weather. The next best time to sow is very early in the spring, in February or March, starting the seed in a box indoors or in a coldframe and setting the plants outdoors the latter part of April. Pansies should be given plenty of room, at least 8 inches between plants, and good cultivation, also a liberal supply of water during dry weather. If set out in a spot that is shaded part of the day, where the soil is deep and moist, and the flowers picked daily, the plants may be kept blooming all summer, but the flowers always run small in hot weather. Fall-blooming plants are secured by sowing in June or early July.

Fine Mixed Colors. A splendid assortment of select English, French, and American varieties for bedding, including many bright and beautiful colors. Pkt. 10 cts., $\frac{1}{2}$ oz. \$1.50, oz. \$2.50.

Cassier's Giants. A famous French strain of very large-flowered Pansies, all of them of the popular "faced" or blotched type. The colors and markings are gorgeous. The plants are vigorous and carry their flowers erect on long, strong stems. Pkt. 20 cts., $\frac{1}{2}$ oz. \$4, oz. \$7.

Steele's Mastodons. This is a fine American selection which produces the largest Pansies of all, the flowers often measuring $2\frac{1}{2}$ inches in diameter. The plants are large and sturdy and exceptionally free-blooming. The colors are magnificent, including many fine reds and purples. An ideal strain for florists' use as well as home-gardens. Pkt. 20 cts., $\frac{1}{2}$ oz. \$4, oz. \$7.

Giant Colossal Record. Flowers enormous and in many respects superior to all other varieties. Richly colored selfs and varieties with large spots of contrasting shades. Robust stems; thick and weather-resistant petals. **Mixed Colors.** Pkt. 25 cts.

PERENNIAL PEAS. Hardy climbers, attaining a height of 5 to 6 feet each season and living

from year to year. They bear quantities of flowers that resemble the old-fashioned Sweet Peas except that they have no fragrance. They grow well on stone walls, fences, and low trellises.

Mixed Colors. Including Red, Rose, and White. Pkt. 10 cts., $\frac{1}{2}$ oz. 40 cts., oz. 75 cts.



New Fringed Petunias

PETUNIAS

For solid beds of color, borders and edging, vases and porches; in fact for every purpose except cutting, the Petunias are surpassed by few if any of the easily grown garden annuals. They come into bloom early and continue to flower profusely all summer long, thriving on poor soil and in the hottest weather. Sow the seed in April or May, scattering it thinly on fine sifted soil and, instead of covering it, press it firmly into contact with the earth with a smooth board. When the seedlings are about 2 inches high, transplant them to the place where you want them to bloom.

Dwarf Inimitable. Round, bushy plants growing about 7 inches high, covered with single flowers of maroon, crimson, and rose, all striped or starred with pink or white. Very free-blooming and fine for low beds and edging. Pkt. 10 cts., $\frac{1}{2}$ oz. 75 cts., oz. \$1.25.

Rosy Morn. Vigorous plants, 10 inches tall, compact and free-flowering. Flowers soft carmine-pink with white throat. Pkt. 10 cts., $\frac{1}{2}$ oz. \$1.25, oz. \$2.

Rose of Heaven. Dwarf; brilliant fiery rose, similar to Rosy Morn, but more brilliant. Pkt. 10 cts., $\frac{1}{2}$ oz. \$1.25, oz. \$2.

Single Varieties, Fine Mixed. A splendid assortment of Petunias for bedding, including many fine colors. Pkt. 10 cts., $\frac{1}{2}$ oz. 75 cts., oz. \$1.25.

Double Fringed, Mixed. A magnificent strain produced by careful hand hybridizing. The flowers are large and have beautifully frilled and crinkled petals. A large percentage will come double. These Petunias make splendid pot plants. Pkt. 50 cts.

New Fringed Petunias

This new strain was originated by a famous American Petunia specialist. The plants are robust and free-blooming.

White Beauty. Snowy white.

Pride of Portland. Deep glowing rose.

Pink Beauty. Clear light pink.

Scarlet Beauty. Crimson-scarlet.

Elk's Pride. Violet-purple; large and usually plain edged.

Ruffled Giants, Mixed Colors. Immense single flowers with ruffled and fringed petals, in all colors.

Dwarf Superbissima Giant, Mixed. The largest flowering Petunia of the Grandiflora or ruffled class. Very dwarf plants with giant flowers in a remarkable variety of colors.

Above varieties, each, pkt. 25 cts.

Dwarf Giants, Mixed. (Romona strain.) Pkt. 50 cts.



Portulacas

ANNUAL PHLOX, DRUMMONDII.

Blooming in mid-summer, these easily grown flowers make the most brilliant of beds. They prefer an open, sunny situation, but are not particular as to soil and will give good results under almost any conditions. Sow the seed in April or early May and thin the plants to stand about 4 inches apart. For extra-early flowers start the seed in hotbed or coldframe.

Tall Finest Mixed. A gorgeous variety of colors, including Primrose, White, Pink, Carmine, Blood-Red, Violet, etc., many with distinct white centers. About 15 inches tall. Pkt. 10 cts., 1/2oz. 75 cts., oz. \$1.25.

Dwarf Compact Mixed. These grow about 8 inches high and quite bushy, making fine borders and ribbon beds. Pkt. 10 cts., 1/2oz. \$1.25, oz. \$2.

HARDY PHLOX. Perennial, producing large heads of brilliantly colored flowers of many shades. 2 to 4 feet high. Pkt. 10 cts., 1/2oz. \$2, oz. \$4.

ANNUAL PINKS. The annual Chinese or Japanese Pinks are very thrifty and attractive garden flowers, coming in a wide assortment of forms and colors, and succeeding on any garden soil. They are nice for cutting. Seed sown in April will give blooming plants early in July.

Japanese Single Mixed. An improved strain, producing large, fringed, brightly colored flowers. Pkt. 10 cts., 1/2oz. 30 cts., oz. 50 cts.

Chinese or Indian Double Mixed. These double forms resemble carnations but they come in a remarkable variety of colors, including many flowers with distinct stripes and borders. Pkt. 10 cts., 1/2oz. 40 cts., oz. 75 cts.



Shirley Poppy



Perennial Grass Pinks

PERENNIAL GRASS PINKS.

The Pheasant-Eye, Grass or Clove Pink of the old-fashioned garden, or *Dianthus plumarius* of the botanist, is one of the most pleasing of our low-growing hardy perennials. The plants grow 8 to 10 inches high, with grass-like foliage, and produce in early spring quantities of fringed white or light pink flowers with crimson centers, distinctly clove-scented. On deep, moist soil they will live and increase from year to year with almost no care. Easily grown from seed, sown any time from April to August. Pkt. 10 cts., 1/2oz. 40 cts., oz. 75 cts.

Dianthus deltoides. A creeping rock-garden plant with bright rose-colored flowers on 6-inch stems in midsummer. Pkt. 10 cts., 1/2oz. 75 cts., oz. \$1.25.

PLATYCODON GRANDIFLORA.

Balloon Flower. Erect leafy plants bearing a profusion of inflated, balloon-like buds, opening to wide, saucer-shaped flowers of steel-blue and white. Good border perennial for late summer blooming. Foliage bright yellow in autumn. Pkt. 10 cts., 1/2oz. 75 cts., oz. \$1.25.

POPPIES. Although the Poppies last for only a short time, while they are in bloom no flowers can rival them in brilliant colors. The seed is rife and should be scattered thinly in the place where the plants are wanted to bloom, as they do not transplant well. Thin if necessary to give each plant room to develop. Sow the annual sorts in April and the perennial kinds June to September. Require plenty of space.

Shirley, Mixed Colors. Probably the finest strain of annual, single-flowered Poppies. They grow 12 to 15 inches tall and the flowers range in color from white and pale pink to bright scarlet and deep crimson, including rose with white edge, red with white edge, etc. Very showy. Pkt. 10 cts., 1/2oz. 30 cts., oz. 50 cts.

The Tulip Poppy. The brightest color in annual Poppies. Vivid scarlet flowers resembling a big tulip; bluish foliage. Pkt. 10 cts., 1/2oz. 30 cts., oz. 50 cts.

Double-flowered, Mixed Colors. Big, shaggy, ball-shaped flowers on 2-foot stems, including all of the ordinary Poppy colors, as well as Mauve, Purple, Maroon, etc. Extra-fine. Pkt. 10 cts., 1/2oz. 20 cts., oz. 35 cts.

Iceland Poppy, El Monte. Exceedingly showy flowers of silken texture and a dazzling orange hue so intense it hurts your eyes. The plants bloom from seed the first year, and a large percentage will live over winter to bloom in succeeding seasons. Pkt. 25 cts.

Iceland Poppy, Mixed Colors. Perennial plants forming mats a foot across with slender stems and large silky flowers in shades of yellow, white, and orange. Pkt. 10 cts., 1/2oz. \$1.25, oz. \$2.

Orientele. The big, bright scarlet Decoration Day Poppy. A hardy perennial form bearing immense single flowers in spring. It should be in every garden. Pkt. 10 cts., 1/2oz. \$1.25, oz. \$2.

PORTULACA. The Portulacas will grow on soil too poor and in places too hot and sunny for any other flower. The plants are low and spreading, commencing to bloom in July and blooming profusely all summer. Sow the seed in late April or May and thin the plants to stand 6 to 8 inches apart. The plants may be moved when in full bloom.

Single, Mixed Colors. Includes White, Yellow, Orange, Pink, Carmine, Scarlet, etc. Very bright and attractive. Pkt. 5 cts., 1/2oz. 60 cts., oz. \$1.

Double, Mixed Colors. The flowers resemble miniature roses. All colors. Pkt. 10 cts., 1/2oz. \$1.75, oz. \$3.

Double Grandiflora, Mixed. Upright stems. Different from the other varieties because of its upright, compact habit, growing in a distinct tuft. Pkt. 25 cts.

HARDY PRIMROSES. These are fine free-blooming flowers for the rockery and perennial borders. They seem to do best in dry soil and will stand some shade. Sow the seed inside in February or early March and transplant to the open ground in April. Give the plants light protection over winter for the first year or two.

Finest Mixed Colors. Many shades and colors, the majority with distinct "eyes" or centers. Pkt. 10 cts.



Salvia splendens



Golden Chrysanthemum-flowered Sunflower



Sweet William. See page 42.

PYRETHRUM. Hardy perennial plants very easy to grow from seed sown any time from early spring to late summer. Seed started under glass in February will give blooming plants the first summer. By cutting off the first crop of flowers a second crop will be produced in the fall.

Double White or Feverfew. Ball-shaped, creamy white flowers that are fine for cutting and make a splendid showing in the garden. Pkt. 10 cts., $\frac{1}{2}$ oz. 25 cts., oz. 45 cts.

Golden Feather. Grown mostly for its showy golden yellow lacinated foliage. Nice for borders. Pkt. 10 cts., $\frac{1}{2}$ oz. 25 cts., oz. 45 cts.

Roseum, Single and Double Mixed. Painted Daisy. These include all shades from deep red to white. Pkt. 10 cts., $\frac{1}{2}$ oz. \$1.75, oz. \$3.

RHODANTHE. One of the so-called "Everlastings" that can be dried in its natural colors for winter bouquets. It is an easily grown annual, about $1\frac{1}{2}$ feet tall, with silvery gray leaves and very pretty, little, double flowers.

Mixed Colors. White, Pink, and Crimson. Pkt. 10 cts., $\frac{1}{2}$ oz. 40 cts., oz. 75 cts.

SALPIGLOSSIS. A popular, easily grown garden annual, richly colored and fine for cutting. The flowers are borne in clusters at the top of long stems and are produced very freely from midsummer to fall. Sow the seed in late April or May and thin the plants to stand about 10 inches apart.

Dwarf Varieties, Finest Mixed Colors. These grow about 2 feet tall. The flowers range from White, Rose and Pale Blue to Deep Red and Violet, beautifully penciled with gold on the petals and with darker shadings in the throat. Pkt. 10 cts., $\frac{1}{2}$ oz. 60 cts., oz. \$1.

SALVIA. The Scarlet Salvia, or Flowering Sage, makes the most gorgeous masses of flaming red found in all nature. For formal beds, for grouping in front of porches and for similar purposes, it is exceedingly popular, requiring

little care after the plants are established, and blooming profusely from June until killed by frost. Start the seed indoors or in hotbeds very early, during January or February if possible. Give the seedlings plenty of light, warmth, and water, and when they are 2 to 3 inches high transplant them into small pots or space them out to stand 6 inches apart. Transplant them to the garden in late May, giving them a sunny location and rich, deeply dug soil if possible, setting the plants at least $1\frac{1}{2}$ feet apart.

Splendens. The original Scarlet Sage. It grows about 2 feet tall and is covered with large, bright red blossoms all summer long. Pkt. 10 cts., $\frac{1}{2}$ oz. \$1.75, oz. \$3.

Bonfire. A select strain, fine for mass planting, as it is very compact in growth and has exceedingly brilliant extra-large flowers. Pkt. 10 cts., $\frac{1}{2}$ oz. \$2, oz. \$3.50.

America. Considered to be the finest of all, particularly for low beds and borders as it grows only about $1\frac{1}{2}$ feet tall. It is an exceptionally profuse and constant bloomer, the plants a mass of light blazing scarlet. Pkt. 10 cts., $\frac{1}{2}$ oz. \$3, oz. \$5.

SNAPDRAGONS (*Antirrhinum maximum*).

Finest for cutting. Stems 2 to 3 feet long. Free-blooming garden favorites, of the easiest culture, and producing their beautiful flowers all summer long. Sow the seed in the garden in April and when the plants are 2 to 3 inches high, thin or transplant them to stand 10 to 12 inches apart in rich, well-fertilized soil where they can be given plenty of water. Early spring flowers may be secured by sowing in July or August and protecting the plants over winter like pansies, or they may be cut back and potted up in the fall to bloom indoors. No flower-garden is complete without these handsome flowers.

Peach Glow. Soft, peachy or creamy pink.

The Rose. Vivid dark rose-color.

Old-Gold. Glowing yellow with bronze tones.

Mixed. All colors, White, Yellow, Scarlet, Pink, Purple, Crimson, and many handsomely spotted or mottled varieties.

All, pkt. 25 cts., $\frac{1}{2}$ oz. \$1.75, oz. \$3

Large-flowering Half-Dwarf Varieties, Mixed. These are the best sorts for outdoor bedding and nice for cutting. They grow about 15 inches tall and the flowers come in a great wealth of beautiful colors, including all shades of Pink, Salmon, Mauve, Orange, Red, White, and Yellow. Pkt. 10 cts., $\frac{1}{2}$ oz. 30 cts., oz. 50 cts.

SENSITIVE PLANT. The Sensitive Plant, or

Mimosa pudica, gets its name from its interesting habit of closing its leaves at the slightest touch. Sow the seed in the house in March and transplant to the open ground late in May. Pkt. 10 cts., $\frac{1}{2}$ oz. 30 cts., oz. 50 cts.

STOCKS. The old-fashioned Ten Weeks Stocks are beautiful,

free-flowering, sweet-scented annuals, requiring a mellow soil but otherwise very easy to grow. Sow the seed in April or May and give the plants 12 to 15 inches of space. They may be potted up in the fall and will bloom almost as freely in the house as out-of-doors.

Dwarf German. A vigorous garden strain that grows about 1 foot high and sends up quantities of heavy spikes crowded with blossoms, many double, in a great range of delicate colors. Pkt. 10 cts., $\frac{1}{2}$ oz. \$1.25, oz. \$2.25.

SUNFLOWERS. Sow the seed in April or May and give the plants plenty of room. Fine for massive borders and backgrounds.

Golden Chrysanthemum-flowered. Strong plants, growing 4 to 5 feet high, with many branches bearing big, double flowers like golden chrysanthemums. Pkt. 10 cts., $\frac{1}{2}$ oz. 30 cts., oz. 50 cts.

Miniature (*Cucumerifolius*). Single flowers, bright yellow with dark brown centers. Fine for cutting as well as display. Pkt. 10 cts., $\frac{1}{2}$ oz. 30 cts., oz. 50 cts.

Red. Large single or semi-double flowers ranging in color from pink to deep purplish red and mahogany. Pkt. 10 cts., $\frac{1}{2}$ oz. 40 cts., oz. 75 cts.

Mammoth Russian. The common variety and the largest and most productive, growing to a height of 6 to 8 feet. Oz. 10 cts., $\frac{1}{4}$ lb. 15 cts., lb. 40 cts.

SWEET WILLIAM. Hardy, thrifty perennials, great favorites in all gardens; easily grown from seed. The flowers are borne in large trusses and are delightfully fragrant. Sow any time from early spring to July. The plants should stand at least 8 inches apart.

Single Varieties, Mixed Colors. White, Pink, Red, Dark Crimson and other colors, many with distinct "eyes" or margins of a different shade. Pkt. 10 cts., ½ oz. 30 cts., oz. 50 cts.

Double Varieties, Mixed Colors. The double flowers are very attractive in form as well as colors. Pkt. 10 cts., ½ oz. 50 cts., oz. 90 cts.



Spencer Sweet Peas

SWEET PEAS

Success with Sweet Peas in our climate depends largely on getting an early start in order that the vines may make their growth and commence to bloom before hot weather. Some people always sow their Sweet Peas on St. Patrick's Day; others believe in sowing on Good Friday; but the point is that the seed can and should be sown just as early in the spring as the ground can be put in shape to receive it. Next in importance is the insuring of a plentiful supply of moisture and fertility about the roots; this is accomplished by digging a trench a foot or more deep and then refilling it to within 6 inches of the top with loose soil mixed with a fair quantity of manure, compost, or other humus material if the soil be poor, and with a scattering of lime or wood-ashes to correct any acid condition. Sow the seeds on top of this layer, spacing them 1 to 2 inches apart, and cover with an inch of soil. As the plants grow, fill in the trench around them until the level of the surface is reached. By this method the roots will be deep enough so that they will not be seriously affected by hot, dry weather. Thin out, if necessary, so as to leave 4 to 6 inches between plants, and support the vines with brush, netting, or strings.

Sweet Peas bloom best in an open, sunny situation. Keeping the flowers picked as fast as they open prolongs the period of bloom. The old-fashioned or Grandiflora type of Sweet Peas are hardy and very floriferous and the flowers are heavily scented, although of only medium size and rather stiff in form. The new Spencer or Waved Sweet Peas are much larger and finer in form as well as colors, but not quite so free-blooming. Modern gardeners and florists as a rule grow only the Spencer varieties. Use **Stimugerm on Sweet Peas.** See page 73

SPENCER SWEET PEAS

Distinguished by giant size, often measuring 2 inches in diameter, and by beautifully waved petals. Hundreds of varieties are known to specialists and new sorts are being constantly produced by English and American breeders, but we believe that the varieties we offer comprise the best and most satisfactory of the new as well as old, in all of the favorite colors.

	Pkt.	Oz.	¼lb.	Lb.
All Bright. Scarlet-cerise.....	\$0 15	\$0 60	\$2 00	\$7 00
Asta Ohn. Pinkish lavender.....	10	30	1 00	3 00
Countess Spencer. Rose-pink.....	10	30	1 00	3 00
Crimson King. Rich ox-blood-crimson	10	30	1 00	3 00
Elfrida Pearson. Giant shell-pink...	10	30	1 00	3 00
Etta Dyke. Giant pure white.....	10	30	1 00	3 00
Fiery Cross. Bright orange-scarlet...	10	30	1 00	3 00
King Edward. The best deep red...	10	30	1 00	3 00
Majestic Cream. Rich deep cream...	10	30	1 00	3 00
Margaret Atlee. Rich cream-pink...	10	30	1 00	3 00
Mary Pickford. Cream-pink.....	15	60	2 00	7 00
Miss California. Beautiful orange-salmon and cream-pink.....	15	60	2 00	7 00
Mrs. Tom Jones. Bright delphinium-blue.....	10	30	1 00	3 00
New Miriam Beaver. Light apricot-buff-pink.....	10	30	1 00	3 00
Othello Spencer. Dark chocolate-maroon.....	10	30	1 00	3 00
Pinkie. Large; rose-pink.....	10	30	1 00	3 00
Primrose Spencer. Pale creamy yellow.....	10	30	1 00	3 00
Prince of Orange. Deep orange.....	10	30	1 00	3 00
Reflection. Best clear blue.....	15	60	2 00	7 00
Royal Purple. Immense bright purple	10	30	1 00	3 00
Wedgwood. Fine clear blue.....	10	30	1 00	3 00
Winnie Morse. Flushed rose-pink...	15	60	2 00	7 00
Scott's Finest Mixed Spencers.....	10	25	75	2 50

GRANDIFLORA SWEET PEAS

These are the old-fashioned Sweet Peas, not so large or delicately formed as the Spencers, but more profuse in bloom.

Eckford's Finest Mixture. The best of the Grandiflora varieties, in all colors. Oz. 10 cts., ¼lb. 30 cts., lb. \$1.



Hybrid Verbenas



Mammoth Dahlia-flowered Zinnia

THUNBERGIA. A slender climbing or trailing annual with many little flowers, varying from palest primrose to deep buff-yellow, all with dark centers, from which it derives its common name, "Black-eyed Susan." Start indoors in February or March. Thunbergia may also be grown in the greenhouse at any time of year. Pkt. 10 cts., $\frac{1}{2}$ oz. 40 cts., oz. 75 cts.

VERBENA. Low, spreading plants with handsome dark green foliage and great clusters of sweet-scented flowers all summer long. Old favorites for low beds and edging, also for boxes and vases. Sow indoors in February or March.

Mammoth Hybrids. These varieties produce extra-large flower-heads with individual florets often measuring an inch across. **Lucifer** (Scarlet); **Italian Striped**, **Auricula-eyed Mixed**, **Red**, **White**, **Blue**, or **Pink**, in separate colors or Mixed. Pkt. 10 cts., $\frac{1}{2}$ oz. 60 cts., oz. \$1.

Choice Mixed. Contains many colors including many striped and "eyed," as well as self-colored sorts, but not so large. Pkt. 10 cts., $\frac{1}{2}$ oz. 40 cts., oz. 75 cts.

VERONICA *spicata*. Sturdy plants bearing erect spikes of dark blue flowers in midsummer. A good low perennial about 18 inches tall, useful for garden decoration and cutting. Pkt. 10 cts., $\frac{1}{2}$ oz. \$1.25, oz. \$2.

VINCA. This tender perennial is better known as Madagascar Periwinkle and will bloom the first year if seed is sown early. It forms handsome, bushy bedding plants that bloom profusely all summer from seed sown indoors in February or March, and is fine for pot culture. 1 to 1½ feet high.

Choice Mixed. An excellent assortment of Red, White with Rose center, Pure White, and Pink. Pkt. 10 cts.

WALLFLOWER. The Wallflowers are perennials but in our rigorous climate they require protection over winter and are best carried over in a coldframe. They grow best in a deep, moist soil. Sow the seed indoors in March or outdoors late in May and space the plants about 8 inches apart. The flowers are clustered on spikes 1½ feet tall, very fragrant.

Single Varieties, Mixed Colors. Artistic shades of Coppery Red, Bright Brown, Bronzy Yellow, etc. Pkt. 10 cts., $\frac{1}{2}$ oz. 40 cts., oz. 75 cts.

WILD CUCUMBER. A very rapid-growing, vigorous climber, often running 30 to 40 feet in a season. It bears small, white, slightly fragrant flowers, followed by spiny seed-pods. Pkt. 10 cts., $\frac{1}{2}$ oz. 20 cts., oz. 35 cts.

ZINNIAS. Few flowers provide a more gorgeous display with less care or attention; all they require is a sunny spot to cause them to grow and bloom vigorously from early summer until frost. The seed may be sown in the garden any time during April or May and the plants thinned or transplanted to stand 8 to 18 inches apart, according to variety. The largest specimen blooms are produced on plants that are grown on a mellow, moderately rich soil and given ample room to develop.

Mammoth Dahlia-flowered. The newest and largest of the Zinnias, making sturdy plants 3 feet high, with very deep, double flowers made up of numberless small, silky petals. The blooms are so large as to be termed "gigantic" and resemble the popular Decorative Dahlias enough to justify their name. **Crimson Monarch** (red), **Dream** (purple), **Exquisite** (pale rose), **Oriole** (orange-gold),

Scarlet Flame (bright scarlet), pkt. 15 cts., $\frac{1}{2}$ oz. \$1.25, oz. \$2. **Finest Mixed.** All colors. Pkt. 15 cts., $\frac{1}{2}$ oz. 75 cts., oz. \$1.25.

Scott's Double Giants. Next to the new Dahlia-flowered class, these are the tallest and largest of the Zinnias and constitute a great improvement over the old types. The plants grow 2½ feet tall and bear immense, double blooms often 5 inches in diameter. **Pure White**, **Clear Yellow**, **Rose-Pink**, **Bright Scarlet**, **Deep Crimson**, or **Purple**, in separate colors or Mixed. Each, pkt. 10 cts., $\frac{1}{2}$ oz. 75 cts., oz. \$1.25.

Scabiosa-flowered. Entirely different from all other Zinnias. The plant reaches the height of about 40 inches and flowers abundantly. The form of the blooms is unique. The outer edge is formed of long ray petals; and the center is a tuft of many small, perfect flowers, which at first sight give it a great resemblance to the scabiosa. **Mixed Colors.** Pkt. 25 cts.

Elegans, Tall Varieties, Mixed. The type most commonly grown. Pkt. 10 cts., $\frac{1}{2}$ oz. 30 cts., oz. 50 cts.

Elegans, Dwarf Varieties, Mixed. Pkt. 10 cts., $\frac{1}{2}$ oz. 30 cts., oz. 50 cts.

Improved Lilliput, Finest Mixed. Tiny button-like flowers of great charm for cutting or garden decoration. Many brilliant colors. Pkt. 10 cts., $\frac{1}{2}$ oz. 30 cts., oz. 50 cts.

Scott's Annual Cut-Flower Mixture

Here is a mixture of annuals that we do not hesitate to recommend. Anyone is sure to have success with it, and it provides continuous bloom all summer. This mixture should be in every garden, no matter how large or small. Pkt. 10 cts., $\frac{1}{2}$ oz. 25 cts., oz. 45 cts., $\frac{1}{4}$ lb. \$1.50.



For Your Lawn—Start with Good Seed

The first and most important requirement for a smooth, lasting green lawn is pure, vigorous seed of the most suitable varieties of grass. No one kind of grass will meet all the varying conditions of climate and soil. For best results it is necessary to sow a mixture of different sorts, but to avoid trouble with weeds and have a solid green lawn at all times and under all conditions, such a mixture must be composed of the right kinds of grass in the right proportions.

The Scott Lawn Grass Mixtures are made of the best re-cleaned American and European grass seeds it is possible to procure. They contain no "fillers," such as unhulled Red Top, light-weight Blue Grass, etc., and they are as free from weeds as the most modern and careful methods of harvesting and cleaning can make them. They have been used in making thousands of fine lawns. Better lawn grass mixtures cannot be made.

Fertilizers. After the soil has been well prepared and the seed sown, we recommend that a high-grade fertilizer be used. We have a complete line of fertilizers, and prices and descriptions will be found on pages 68 to 72.

"Lawns, How to Make and Maintain Them." A carefully prepared leaflet, free to those who ask for it.

SCOTT'S "PURITY" LAWN GRASS SEED

This is an extra-fine mixture of re-cleaned Grass Seeds of the varieties that are best adapted to general lawn sowing. In preparing this mixture it was our aim to make a formula that would produce a durable and lasting lawn, withstanding the extreme heat of the summer, the cold and frost of winter, as well as the periods of drought and moisture that mark our Pennsylvania climate. We believe the testimony of our customers will prove that we have succeeded in our efforts, and a lawn that is sown with our Lawn Grass Mixture will show a rich, velvety appearance in five to six weeks after sowing.

Sow at the rate of about one pound to each 300 square feet. This is a liberal seeding. About 100 pounds will be required to seed an acre of lawn. A measured bushel will weigh about twenty-seven pounds. $\frac{1}{2}$ lb. 25 cts., lb. 45 cts., 2 lbs. 85 cts., 5 lbs. \$1.90, 10 lbs. \$3.50, 25 lbs. \$7.50, 100 lbs. \$27.

Bent Lawn Grass Mixture. Composed of Agrostis varieties (Colonial Bent and Red Top). Soil should be well prepared. Apply sulphate of ammonia at rate of 1 pound to 250 square feet several times during the growing season, mixed with several times its bulk of dry, fine, sifted soil. Sow at the rate of about 1 pound to each 250 square feet or 175 pounds of seed to the acre. $\frac{1}{2}$ lb. 45 cts., lb. 75 cts., 5 lbs. \$3.50, 10 lbs. \$6.75, 25 lbs. \$15.50, 100 lbs. \$60.

Shady Lawn Mixture. This mixture is made from Grasses which will thrive under the shade of trees and buildings, where comparatively little sun reaches the ground, and in places where ordinary Grasses will not succeed. The quantity of seed required for sowing is practically the same as for our Lawn Grass Mixture. $\frac{1}{2}$ lb. 30 cts., lb. 55 cts., 2 lbs. \$1, 5 lbs. \$2.25, 10 lbs. \$4, 25 lbs. \$9, 100 lbs. \$33.

Scott's "Evergreen" Lawn Grass Mixture. This mixture can be depended on to produce a beautiful and permanent lawn. It is composed of re-cleaned Grass Seeds which are adapted for the purpose of producing thick turf and will give good results. $\frac{1}{2}$ lb. 20 cts., lb. 35 cts., 2 lbs. 65 cts., 5 lbs. \$1.50, 10 lbs. \$2.80, 25 lbs. \$6.25, 100 lbs. \$22.

GRASS SEEDS BY PARCEL POST. If wanted by Parcel Post, add to the prices given, $\frac{1}{2}$ lb. and 1 lb., 10 cts.; 2 lbs. 12 cts.; 5 lbs. 20 cts.; 10 lbs. 30 cts.; 25 lbs. 45 cts.





GRASS SEEDS

SOUTH GERMAN BENT (*Agrostis stolonifera*). A superior Grass for putting-greens on account of its dwarf growth and its narrow leaves. It will grow and make good turf in good or bad soils, and dry weather or heavy rains seem to have no serious effects. About forty pounds of seed are required for an acre.

COOS COUNTY BENT (*Agrostis alba maritima*). Used principally on golf-courses for putting-greens. Its texture is fine and uniform, and under good cultural conditions, on soils of reasonable fertility, it will form a sod very quickly. It makes a very good growth in rather dense shade, and spreads with great rapidity, largely by surface-creeping stolons that root at the nodes. A fine-leaved, bright green Grass that continues growth and maintains its color especially well during hot weather as well as under low temperatures.

COLONIAL BENT (*Agrostis capillaris*). A tight, thick turf, permanent under close mowing. Good for putting-greens and fairway mixtures.

ASTORIA BENT (*Agrostis capillaris*; *Astorian*). An underground creeper, making a deep, heavy sod of fine texture and color.

RED-TOP (*Agrostis alba*). A valuable Grass for hay, pasture or lawn. It will grow on any soil that is not extremely dry. With the possible exception of Kentucky Blue Grass, it surpasses all other Grasses for lawn-making, and is an extra-good variety for golf-grounds and other places where the turf must withstand hard usage. About fifteen to twenty pounds of seed will be required for an acre. We handle nothing but the solid re-cleaned seed, having discarded the unhulled and chaff grades.

KENTUCKY BLUE GRASS (*Poa pratensis*). Kentucky Blue Grass is most valuable for pastures and lawn planting. For lawns it is indispensable and, when well established, the lawn will last for years, as the Grass makes an extra-close fine-textured turf. The seed should be mixed with other Grasses that mature earlier, for Blue Grass is very slow in both germinating and maturing.

WOOD MEADOW GRASS (*Poa nemoralis*). Will grow in shady places where practically no other Grass will succeed, and therefore is particularly desirable for shaded lawns. It is also desirable for mixing with golf-link Grasses, as it makes a compact turf. About thirty-five pounds of seed for an acre.

ROUGH-STALKED MEADOW GRASS (*Poa trivialis*). A thick-matting, stoloniferous species which makes a heavy turf well-adapted to shady situations. Light moisture, but does not do well in dry, exposed places.

DOMESTIC RYE GRASS. A mixture of Italian and English Rye Grass grown in the United States. Quick-growing and often used for a nurse-grass or temporary turf.

ITALIAN RYE GRASS (*Lolium italicum*). Makes a dense turf when sown thickly or mixed with other Grasses. It is most useful on medium moist soils and grows very rapidly into a bright green sod.

PACEY'S PERENNIAL RYE GRASS (*Lolium perenne*, Pacey). A fine-leaved Grass, smaller than the ordinary variety and more resistant to cold. An excellent green on fairways or anywhere that a quick-growing sod is needed. Not permanent in turf.

CHEWING'S NEW ZEALAND FESCUE (*Festuca rubra fallax*). A fine, needle-like sod excellent for putting-greens and lawns.

RED FESCUE (*Festuca rubra*). A close, long-lasting turf for dry, sandy soils. Excellent at the sea-shore.

SHEEP'S FESCUE (*Festuca ovina*). Bluish "bunch Grass," useful for mixtures, for dry lands and pastures.

HARD FESCUE (*Festuca duriuscula*). A wiry bluish gray Grass for dry lands. Extremely hardy.

CRESTED DOG'S-TAIL (*Cynosurus cristatus*). A low-growing Grass that makes extra-dense turf in rich, moist soils; is also desirable for putting-greens and lawns. Will grow equally well in the shade or the sun. About seventy pounds of seed will be required for an acre.

ORCHARD GRASS (*Dactylis glomerata*). A quick-maturing Grass that is used for pasture and hay. It may be cut several times during the year, but it is advisable to use the machine before the plants show the seed-heads. From thirty to thirty-five pounds will be required for an acre.

SWEET VERNAL GRASS (*Anthoxanthum odoratum puellii*). A quick-growing, fragrant Grass of little value for lawns.

TIMOTHY (*Phleum pratense*). One of the most important hay Grasses, sometimes used to nurse lawns made on rough soil. The most valuable hay plant.

WHITE DUTCH CLOVER (*Trifolium repens*). Valuable for quick lawns and permanent pastures.

PERMANENT PASTURE

On account of the great variation of soils and conditions, a fixed formula for a permanent pasture is not feasible in all cases. We, however, recommend the following as the mixture that will produce the best all-round results. Seed required for one acre:

12 lbs. Kentucky Blue Grass	6 lbs. Medium Red Clover
3 lbs. Re-cleaned Red Top	3 lbs. Alsike Clover
6 lbs. Timothy	1 lb. White Clover

Where there are steep, shaley, or thin soil knobs or ridges, about 8 pounds of Orchard Grass should be added to the above.

Pasture Mixtures have been, in the past, a very convenient method of getting rid of low-grade seeds, and we prefer to sell the straight seeds and let the purchaser do the mixing. He knows then just what he is getting and what the mixture contains.

SUMMER-FLOWERING BULBS

HARDY LILIES

Showy garden flowers of the utmost beauty and stateliness, which are enormously popular just now. Plant them 6 to 8 inches deep and as early as possible in well-drained unfertilized soil, and let them alone.

Auratum (Gold-banded Lily). White flowers of enormous size with crimson spots and golden stripes produced in August. 25 cts. each, \$2.50 per doz.

Henryi. The flower-stalk, 3 to 5 feet high, carries numerous flowers, each a rich apricot-yellow spotted with brown. 35 cts. each, \$3.50 per doz.

Regale (The Royal Lily). Enormous, trumpet-shaped flowers, with waxy white petals suffused with gold inside and stained with purple outside; fragrant. It is very hardy and does well in almost any situation, growing 2 to 4 feet high and bearing its blooms in a whorl at the top. 35 cts. each, \$3.50 per doz.

Speciosum album. Pure white. 25 cts. each, \$2.50 per doz.

Speciosum rubrum. White, shaded with deep rose and spotted red. 35 cts. each, \$3.50 per doz.

Tigrinum splendens (Tiger Lily). A larger and more prolific flowering form of the old-fashioned Tiger Lily. It grows 4 to 6 feet tall, bearing an immense cluster of showy orange-red and brown flowers, which last for weeks. Very easy to grow, and increases year by year in beauty and size. 25 cts. each, \$2.50 per doz.

BEGONIAS, TUBEROUS-ROOTED

These plants grow from hard, crooked bulbs, like flat potatoes, hollowed on one side. In planting, be sure that the hollow side is up. They make strong, fleshy stems a foot or more high, with big, bristly, very beautiful leaves, crowned by flowers of enormous size and almost unbelievable brilliance. Blooms $4\frac{1}{2}$ to 5 inches across are not unusual. They should be started in pots or pans indoors in February or March, and transplanted to the garden about the time that corn is growing well. They may also be started outdoors at the same time but will bloom later. Separate colors: **Single varieties, white, scarlet, pink, or yellow flowers; Double varieties, red, salmon, rose, or orange flowers.** All varieties, 25 cts. each, \$2.50 per doz., \$16 per 100.



Lilium auratum



Lilium regale

GLOXINIA

Beautiful velvety flowers of trumpet shape produced by tender, tropical bulbs which may be grown in pots or greenhouse benches. The large foliage is covered with plush-like hairs, and should not be wet. Keep them warm at all times. The flowers are violet, rose, crimson, white, or beautifully mottled.

Mixed colors. 30 cts. each, \$3 per doz., \$20 per 100.

Caladium esculentum (Elephant's Ear)

For imposing masses of tropical foliage there is nothing so effective or so easily grown as the Elephant's Ear. The plants grow from 3 to 5 feet high, with enormous bright green leaves, veined with lighter green, broad and thick and bearing a decided resemblance to elephant's ears, whence the popular name. They thrive best in a moist, rich soil but can be grown in almost any situation. Plant the bulbs late in May, after all danger from frost is past, spacing them 2 to 4 feet apart and covering them a few inches deep. The larger the bulb, the larger the plant and the more space required. If extra-large plants are desired, start the bulbs indoors in pots or large boxes, in March or early April, and transplant to the open about June 1. Give plenty of water throughout the season; liquid manure is very beneficial. The bulbs may be carried over winter by digging them up after frost has killed the leaves, drying them in the sun, and then storing in boxes with sand or dry soil in a frost-proof cellar.

	Each	Doz.	100
5 to 7 inches circumference.....	\$0 05	\$0 50	\$3 50
7 to 9 inches circumference.....	10	1 00	7 00
9 to 11 inches circumference.....	15	1 50	10 00
11 to 13 inches circumference.....	25	2 75	20 00
13 to 15 inches circumference.....	40	4 00	30 00

TUBEROSE

Old-fashioned flowers valued for their fragrance. Start the bulbs indoors in March and transplant to the open in early May.

WHITE PEARL. The best variety. Flowers creamy white, large, and double.

First-Size Bulbs. 5 cts. each, 50 cts. per doz., \$3.25 per 100.

Mammoth Bulbs. 10 cts. each, \$1 per doz., \$7 per 100.

All Bulbs sent postpaid at above prices

CANNAS

The modern Cannas with their splendid foliage and large, gorgeously colored flowers surpass all other plants for massive beds and heavy borders. They are very easy to grow, thriving best in a sunny, well-drained spot. For extra-large plants and heavy foliage effects, the soil should be well manured. Dig the bed deep and plant the roots after the middle of May, setting them about 4 inches below the surface and 1½ to 2 feet apart, depending on variety, the tall sorts requiring more space than the dwarf. The plants will bloom continuously from July until frost. If the roots are started in March in pots or boxes of sandy soil placed in a sunny window and given plenty of water, the plants will be several inches high when it is time to set them outdoors, and they will come into bloom a month to six weeks sooner.

Alphonse Bouvier. A popular bedding variety, with green leaves and bright crimson flowers. Height 4½ feet. 6 cts. each, 60 cts. per doz., \$4 per 100.

Ambassador. Brilliant rich cherry-red flowers of immense size. Growth very vigorous and massive. Foliage and stalks bronze. Height 4 feet. 8 cts. each, 90 cts. per doz., \$6 per 100.

City of Portland. Clear glowing rosy pink flowers of unusually large size; broad, rich green leaves. Wonderfully effective and the best Canna of its color. Height 3½ feet. 8 cts. each, 90 cts. per doz., \$6 per 100.

Crimson Bedder. Foliage dark green; flowers deep blood-red. Height 3 feet. 6 cts. each, 60 cts. per doz., \$4 per 100.

Eureka. The best white-flowering Canna for bedding. Height 4½ feet. 8 cts. each, 90 cts. per doz., \$6 per 100.

Fiery Cross. A famous variety, with big, substantial carmine-red flowers and beautiful bluish green foliage. A constant bloomer. Height 4 feet. 8 cts. each, 90 cts. per doz., \$6 per 100.

Florence Vaughan. A favorite bedding Canna. Flowers yellow with red spots; leaves light green. Height 4½ feet. 6 cts. each, 60 cts. per doz., \$4 per 100.

Gladiator. Bright golden yellow flowers, freely dotted with crimson; foliage broad and bright green; a most effective bedder. Height 4½ feet. 6 cts. each, 60 cts. per doz., \$4 per 100.



Bed of Cannas with border of Centaurea, Gymnocarpa and Salvia

Golden Gate. The brightest of the yellow sorts, opening pure golden yellow but becoming suffused and striped in the center with crimson and apricot as the flower develops. Leaves bright green. Height 4 feet. 6 cts. each, 60 cts. per doz., \$4 per 100.

King Humbert. Undoubtedly the most popular Canna in cultivation and, on account of its rich purplish bronze foliage, one of the most handsome and conspicuous. Flowers orange-scarlet, freely produced for a long season. Height 4½ feet. 8 cts. each, 90 cts. per doz., \$6 per 100.

Meteor. One of the finest tall-growing Cannas. The broad-petaled flowers are dazzling crimson and are carried in big clusters. Foliage deep green. Vigorous and blooms for a long season. Height 5 feet. 8 cts. each, 90 cts. per doz., \$6 per 100.

Mrs. Alfred Conard. Rich salmon-pink flowers of great size and substance, come in enormous clusters. The finest bedding Canna of its color. 8 cts. each, 90 cts. per doz., \$6 per 100.

Shenandoah. Flowers salmon-pink, borne in large clusters; foliage rich ruby-red. Height 4 feet. 6 cts. each, 60 cts. per doz., \$4 per 100.

Statue of Liberty. Flowers blazing flame-red. The foliage is of a rich, luxuriant bronzy shade. The leaves are larger than any Canna we know. Height 6 to 7 feet. 8 cts. each, 90 cts. per doz., \$6 per 100.

The President. The finest red Canna in existence and considered by many growers to be the most valuable Canna of any color ever introduced. Enormous glowing scarlet flowers of wonderful substance borne erect on strong stems; luxuriant deep green foliage. Blooms continuously from midsummer until frost. Height 4 feet. 8 cts. each, 90 cts. per doz., \$6 per 100.

Queen Charlotte. Rich pomegranate-red flowers bordered with golden yellow. Height 3½ feet. 6 cts. each, 60 cts. per doz., \$4 per 100.

Wintzer's Colossal. Remarkable for its exceptionally large, broad-petaled flowers, often measuring 8 inches across. Deep scarlet with light green foliage. Height 5 feet. 8 cts. each, 90 cts. per doz., \$6 per 100.

Yellow King Humbert. A large-flowered yellow variety, popular for tall beds. Flowers deep yellow, blotched with red; leaves dark green. Height 5 feet. 8 cts. each, 90 cts. per doz., \$6 per 100.

MISCELLANEOUS BULBS

ANEMONE (Windflower)

Suitable for pot or border culture and for massing. Soak bulbs 24 hours before planting.

De Caen. A very large-flowered, single strain of unique beauty. All colors.

St. Brigid. Very large, vivid flowers of scarlet, pink, purple, etc.

Hollandia. Rich crimson with glittering black centers. Blooms long.

All Anemones, 10 cts. each, \$1 per doz., \$7 per 100

ISMENE CALATHINA (Peruvian Daffodil)

Enormous, richly fragrant white flowers of the amaryllis type, curiously cupped and most attractive. Grow in warm, sunny soil and treat like gladiolus, except that they cannot be set out until corn is growing outdoors, and the bulbs should be kept warm in winter. 30 cts. each, \$3 per doz., \$22 per 100.

RANUNCULUS

Finest Mixed. Fine, brilliantly colored, double flowers on stems over a foot long for cutting. Double and semi-double, and produced in great abundance. 10 cts. each, \$1 per doz., \$7 per 100.

SUMMER-BLOOMING OXALIS

Charming low, bushy plants for growing in pots or borders, with clover-like leaves and round, cheerful flowers of various shades of pink and crimson which close at night. Continue in bloom for many weeks. 4 cts. each, 35 cts. per doz., \$2.50 per 100.

HYACINTHUS CANDICANS (Summer Hyacinth)

Tall spikes with scores of drooping, bell-shaped white flowers in midsummer. Very attractive and unusual. Handle like gladiolus. 15 cts. each, \$1.50 per doz., \$10 per 100.

GLADIOLUS

There are few flowers to compare with the Gladiolus for all-round usefulness in the home-garden—and few flowers are more lovely or easier to grow. Their graceful form, attractive colors, and characteristic markings have given them the popular name of "Garden Orchids." Any ordinary garden soil will grow fine Gladiolus, provided they receive plenty of sunlight. Plant the bulbs any time after mid-April up to the end of June, setting them about 4 inches deep and 6 inches apart. The fine improved sorts we offer make ideal cut-flowers. If cut when the first one or two flowers have opened and kept supplied with fresh water, the remaining flowers will open and the spikes will last for over a week. For a constant supply of flowers for cutting from August to frost, make plantings every week or ten days during the spring. The bulbs may be dug in the fall before the ground freezes and stored over winter in dry, cool, but frost-proof places.

SHOW OR EXHIBITION VARIETIES

For this page we have chosen the cream of the new, gorgeously colored, giant-flowering varieties, and a representative group of older sorts of proved quality which have claimed honors and awards at exhibitions throughout the country. It requires no more effort to grow these modern top-notch varieties than the older, less spectacular sorts, and the rewards in anticipation and eventual realization of Gladiolus delight far outweigh any consideration of first cost. Every grower of Gladiolus will want to avail himself of this opportunity to keep up to date with his favorite flower—and will be more than gratified at the magnificent beauty of these most recently introduced, highly improved varieties. These are prize-winners for garden and flower shows—every one of them.

Betty Nuthall. Flower-spikes long and graceful, carrying from six to eight large, well-expanded blooms at one time, some of which may measure all of 6 inches across. The color is warm coral-pink, with pale markings of orange in the throat and feathery carmine markings. The plant is remarkably tall and vigorous, and the bulbs increase rapidly. 25 cts. each, \$2.50 per doz., \$15 per 100.

Charles Dickens. Purple-violet. Has strong, graceful spikes with ten to twelve flowers at a time. A very good grower and choice variety. 15 cts. each, \$1.50 per doz., \$10 per 100.

Geraldine Farrar. Beautiful pale lavender-blue, with deep violet spot on lower petals. A beautiful variety, though not quite as good as Mrs. Van Konynenburg, which is a little darker in color. 15 cts. each, \$1.50 per doz., \$10 per 100.

Gold Eagle. Pure, bright yellow flower of more refined form and clearer color than most of the yellow varieties. Plants tall, and bear up to 15 florets on the spike. 15 cts. each, \$1.50 per doz., \$10 per 100.

Herbstzauber. This variety has a beautiful warm salmon-copper color. Very large flowers of exquisite form. Tall; late flowering. 15 cts. each, \$1.50 per doz., \$10 per 100.

Illuminator. Brilliant carmine-red with a very faint suffusion of blue. Many large, wide-open flowers on tall, stately spikes. Will resist the hottest sun; extra-fine for cutting. 12 cts. each, \$1.25 per doz., \$8 per 100.

Kunderd's Yellow Wonder. Flowers buttercup-yellow, slightly deeper in the throat, without markings. The long, heavy spikes bear seven and eight open flowers at once, making a magnificent display. The plants are tall and vigorous, coming into flower about 70 days after planting and multiplying rapidly into strong, healthy stocks. One of the finest yellow varieties yet produced. 12 cts. each, \$1.25 per doz., \$8 per 100.

Longfellow. Clear La-France-pink. Tall, slender, wiry spike of large, wide-open flowers. Does not wilt or burn in the hottest weather. 12 cts. each, \$1.25 per doz., \$8 per 100.

Marietta. Delicate shade of light salmon, beautifully blended with light orange; deeper blotch of salmon-red on lower petals, making a very rich color combination. Large flowers on tall, stately spikes. 15 cts. each, \$1.50 per doz., \$10 per 100.

Marmora. Lavender to lavender-gray, with petunia-colored blotch. Ten to twelve very large flowers open at once, well arranged on tall, strong stem. One of the best Gladiolus that has ever been introduced. 18 cts. each, \$1.75 per doz., \$12 per 100.

Minuet. Beautiful clear, light lavender. Four to six large, heavily textured blooms open at once on a good, strong stem. This is the lavender by which all other lavenders are judged. Considered by most growers as the last word in a light lavender Gladiolus. 18 cts. each, \$1.75 per doz., \$12 per 100.

Mrs. P. W. Sisson. Very handsome pale salmon-pink variety of a most soft and appealing shade. The spikes are moderately tall and produce twenty or more buds, five or more of which open at the same time. Highly regarded as a cut-flower by amateur growers, but does not propagate as freely as some other varieties. 15 cts. each, \$1.50 per doz., \$10 per 100.

Mrs. Van Konynenburg. Matchless aniline-blue—far better color than any other blue variety. Grows 5 feet tall, with erect stems and flowers well placed on stem. Even the very last top flower opens up in its true color. Without a doubt the best blue variety. 18 cts. each, \$1.75 per doz., \$12 per 100.

Red Glory. A gorgeous dark red sport of the famous Purple Glory, having the same immense, ruffled flowers, well placed on heavy spikes. It is a deep, glowing color, full of fire and latent charm. The stalks are tall, firm, and well clothed with foliage. Propagates freely from numerous bulblets. Beautiful variety. 15 cts. each, \$1.50 per doz., \$10 per 100.

Veilchenblau. Deep violet-blue. Much larger flowers than Baron Hulot. However, not a very good propagator. 18 cts. each, \$1.75 per doz., \$12 per 100.



Gladiolus

Prices given are postpaid. 50 bulbs of any variety at the 100 rate

STANDARD GLADIOLUS AT POPULAR PRICES

Those who grow Gladiolus for cut-flowers will be interested in this list of tried and true older varieties which are offered here at popular prices. The lower prices do not indicate any lowering of quality in either variety or stock, but simply that, being older, there are more bulbs of the variety in the world, and the demand for them consequently less. Here are some of the finest varieties ever grown at prices well within the reach of everybody. We urge our customers to plant them liberally for garden display or in large blocks for cut-flowers.

5 cts. each, 50 cts. per doz., \$3.50 per 100, except as noted

Baron Hulot. Deep indigo-blue; not large, but there is nothing better in that color. 7 cts. each, 75 cts. per doz., \$5 per 100.

Byron L. Smith. Delicate lavender, deepest at the edges of the petals and shading toward white in the center, giving the impression of an orchid. 7 cts. each, 75 cts. per doz., \$5 per 100.

Captain Boynton. Beautiful lavender, with deeper blotch on lower petals. Large flowers, perfectly placed on tall, strong stems. An excellent variety and early forcer.

Crimson Glow. Glowing, velvety crimson, shaded deeper in the center. Tall, strong grower, with flowers well placed. Considered the best in its color.

Dr. F. E. Bennett. Peach-red, overlaid with flame-scarlet; throat speckled ruby and creamy white. Very large flowers of great substance, many open at a time on strong stems. Sturdy grower. 7 cts. each, 75 cts. per doz., \$5 per 100.

Evelyn Kirtland. Very warm rose-pink, deeper at the edges of the petals, shading towards shell-pink in the center; brilliant scarlet blotches on the lower petals. Strong stem, making it one of the most desirable varieties for cutting.

Giant Nymph. Light rose-pink, with creamy yellow throat. Very large, wide-open flowers, well arranged on long stems. Grows 6 feet tall.

Gloriana. Finest golden salmon, with pure yellow throat. Large, well-opened flowers, many open at a time on always straight, strong and tall stem. 7 cts. each, 75 cts. per doz., \$5 per 100.

Golden Dream. Pure golden yellow. The spike and size of flower is like Golden Measure, though its color is better and clearer yellow. This variety will become one of the leading yellow cut-flowers. 7 cts. each, 75 cts. per doz., \$5 per 100.

Golden Measure. Pure golden yellow. Very large flowers of good substance. Robust grower and considered the best yellow on the market. A Super Glad.

Halley. Salmon-pink with creamy yellow blotch on lower petals. Very early, and great favorite as a commercial cut-flower.

Los Angeles. Beautiful shrimp-pink, glowing orange-carmine blotch in throat. Tall and graceful stems. One of the best forcing varieties for florists. Most bulbs have two spikes.

Louise. Orchid-lavender, with deeper blotch in throat—a refined color combination. Wide-open flowers on strong stem.

Mary Pickford. Lovely creamy white with soft sulphur-yellow throat; stem also creamy instead of green, giving the whole a delicate, unique appearance.

Miss Spokane. Large, brilliant salmon-orange flowers, with conspicuous salmon blotch, well placed on stalk. Midseason bloomer. 7 cts. each, 75 cts. per doz., \$5 per 100.

Mr. W. H. Phipps. La-France-pink, overlaid with salmon-rose, lighter toward the center; lower petals faintly striped and speckled with ruby. Enormous flowers, as many as twenty open at a time, and perfectly placed on gigantic stem. A real Super Glad. 7 cts. each, 75 cts. per doz., \$5 per 100.

Mrs. Dr. Norton. Silvery white base, tinged with pink, deepening toward the edges of the petals; creamy blotches in throat on lower petals. Tall, vigorous grower. Splendid cut-flower.

Mrs. Francis King. Flame-red, shaded salmon toward throat. Very tall, strong spike. An old favorite florist variety.

Mrs. Frank Pendleton. Deep rose-pink, shading to pale pink in throat; large, bright crimson blotches on lower petals, giving it a striking appearance. Tall, vigorous grower. Extra-fine cut-flower and forcer.

Mrs. H. E. Bothin. Geranium-pink, tinted salmon; flaming scarlet center—a very striking color combination. Well placed, heavily ruffled flowers on strong stem. A leader.

Mrs. Leon Douglas. Begonia-rose, striped with flame-scarlet; lower petal pale lemon, speckled ruby. Tremendously large flowers, many open at a time, on very tall, strong stem with several side shoots, the whole forming a gigantic bouquet. Considered one of the largest Glads in existence.

Nancy Hanks. Rich apricot to orange-pink, with grenadine tongue. Six or more flowers open at once, well arranged on strong stem and of good substance. Will not burn in the hottest sun. 7 cts. each, 75 cts. per doz., \$5 per 100.

1910 Rose. Pure deep rose-pink, with white center lines on lower petals. Strong, vigorous grower and very early. Good cut-flower.

Orange Queen. (Prim.) Purest apricot of a very warm tint. Large, open flowers on good stems. Justly considered one of the very choicest Grandiflora Primulinus.

Peace. Pure white, with lilac feathering on lower petals. Large flowers on long, strong stem, many open at a time. Great variety for late blooming.

Purple Glory. Deepest velvety maroon with almost black blotches. Large, ruffled flowers on very tall, sturdy stems.

Rose Ash. Old-rose, overlaid and blended with pink, blue, and red, giving the color of ashes of roses, hence its name. Large flowers on tall, strong spikes. Very attractive.

Scarlet Wonder. Purest deep scarlet. Mammoth flowers, many open at a time on tall, stiff stems. A real giant. 7 cts. each, 75 cts. per doz., \$5 per 100.

Souvenir. (Prim.) Purest golden yellow of all Gladiolus. Large, beautifully shaped flowers on tall, slender stems.

Tyrian Beauty. Pure Tyrian-rose, upper petals a shade lighter. Large flowers, well placed on tall, straight stem. Robust grower. Very attractive. 7 cts. each, 75 cts. per doz., \$5 per 100.

Virginia. Large, massive, flaming scarlet flowers, many open at a time, making a gorgeous display of dazzling red. Good forcer.

SCOTT'S FINEST MIXED. This mixture is made up of many named Gladiolus, including the finest sorts in our list as well as other desirable varieties. Large, healthy bulbs, sure to bloom. 4 cts. each, 45 cts. per doz., \$3 per 100.



Gladiolus Group

Prices given are postpaid. 50 bulbs of any variety at the 100 rate. Larger quantities quoted on request

DAHLIAS

It is doubtful if there are any flowers that afford as much general satisfaction as Dahlias. The ease with which they can be grown in any sunny situation, their freedom from pests and blights, their endless variety of color, size, and form, and their great usefulness for cutting as well as garden decoration insure them a permanent place in popular favor, while their low cost makes it easy for everyone to start a collection which can be added to year after year. The roots or tubers should be planted about 4 inches deep in well-dug soil during May or June. Allow at least 2 feet of space between plants. Trim out all but the strongest two or three shoots and when these are about 4 feet high pinch off the tips to encourage branching. If extra-large exhibition blooms are wanted, remove all but one or two of the top buds on each stem. Tall plants should be tied to stakes for support. Dig roots when frost has killed the foliage in the fall, and store in sand or soil in a cool but frost-proof cellar.

CACTUS DAHLIAS

These are considered by many to be the most attractive of the Dahlias. They are distinguished by narrow, quilled petals which are often curved and twisted in various forms.

Alice Whittier. A beautiful primrose-yellow variety. Very large and of exquisite form. 50 cts. each, \$5 per doz.

Attraction. A beautiful Dahlia that is greatly admired. The flowers, which measure fully 6 inches in diameter, are composed of neatly arranged curled or twisted petals of a lively yet soft silvery mauve-rose, with white suffusion. 30 cts. each, \$3 per doz.

Countess of Lonsdale. A favorite old variety of the true Cactus type, with tightly quilled rays of soft salmon-pink. 30 cts. each, \$3 per doz.

Garden Glow. Orange-red and chrome-yellow. 75 cts. each, \$7.50 per doz.

Gladys Sherwood. The largest white Hybrid Cactus Dahlia. It is deep and full to the center, with good stems. 75 cts. each, \$7.50 per doz.

Lawine. White, showing blush as flowers mature. 30 cts. each, \$3 per doz.

Mars. A very artistically formed Dahlia with long, wavy petals that give it great refinement and grace. The color is an indescribable combination of salmon-red and rich golden ecru. 50 cts. each, \$5 per doz.



Cactus Dahlias



Decorative Dahlia

DECORATIVE DAHLIAS

These include the old-fashioned formal and rather stiff show or "ball" Dahlias, and the newer broad-petaled types of enormous size.

A. C. Ide. This is a grand variety and one certain to be in demand, especially for exhibition. It is large, of fine quality, and blooms are produced freely. The color is a rich velvety maroon. 50 cts. each, \$5 per doz.

Baltimore. Lemon-yellow. 30 cts. each, \$3 per doz.

Barbara Redfern. Old-rose and gold. 50 cts. each, \$5 per doz.

Edward M. Parrish. Attractive shade—lavender-mauve. 30 cts. each, \$3 per doz.

Golden West. One of the best yellows. Good stems. Fine for cutting. 30 cts. each, \$3 per doz.

Jane Cowl. A warm buff and old-gold bloom, with broad, slightly twisted or wavy petals. \$1 each, \$10 per doz.

Jean Kerr. Pure white. 50 cts. each, \$5 per doz.

Jersey's Beauty. Perfect flowers of an ideal shade of pink, with long, handsome stems making it splendid for cut-flower use. A free, early bloomer with exceptional keeping qualities. 75 cts. each, \$7.50 per doz.

Judge Duncan. Crimson-maroon. 50 cts. each, \$5 per doz.

Mrs. I. de Ver Warner. A universal favorite. Clear, bright lilac-rose flowers on 5-foot stems. It is a strong grower and 10-inch blooms can be produced by disbudding. 50 cts. each, \$5 per doz.

Patrick O'Mara. Flowers 8 inches or more in diameter, and borne on long, stiff stems. They are firmly set at right angles, close to stem. The color is an unusually soft and pleasing shade of orange-buff, slightly tinged with Neyron rose. 50 cts. each, \$5 per doz.

Sanhican Blue Bird. An uncommon color blending—bright violet-blue outer petals at maturity, while center retains violet tint. A very large bloom borne erect on a strong wiry stem. 75 cts. each, \$7.50 per doz.

Scarlet Lady. A very pretty dark scarlet on good stem. Free, early, and constant bloomer. 50 cts. each, \$5 per doz.

Zebra. Pearl-white, edged deep pink. 50 cts. each, \$5 per doz.

Prices given are postpaid



Clematis Jackmani



Boston Ivy



Silver Lace Vine

VINES

Well-placed vines make a wonderful addition to the looks of the home or garden. By softening the sharp corners of the buildings and porches, they add a charm not otherwise obtainable. Vine-draped trees and pergolas have a peculiarly appealing grace not easily described, and some of the vines are particularly valuable in covering banks. The following are highly desirable vines. They are all strong, 2-year-old No. 1, field-grown plants, with good root systems, except Cinnamon Vine and Madeira Vine which are roots.

BITTERSWEET. A bold vine with large foliage hung in autumn with clusters of orange and yellow berries which are very decorative all winter. 50 cts. each, \$5 per doz.

BOSTON IVY (*Ampelopsis Veitchi*). High-climbing, clinging, deciduous vine with lustrous, three-pointed leaves 2 to 4 inches across. The best climbing vine for covering houses, walls, etc., in this vicinity. 45 cts. each, \$4.50 per doz.

CINNAMON VINE. A long-lived, vigorous climber with broad heart-shaped leaves and clusters of white, cinnamon-scented flowers. Dies down to the ground each winter but comes up again very quickly in the spring. Large roots, 10 cts. each, \$1 per doz., \$7 per 100.

CLEMATIS Jackmani. Large, flat, 5 to 6-inch, velvety purple flowers, usually in threes, freely produced and highly prized because of their beauty and splendor. Train them over porches or on fences. 75 cts. each, \$7.50 per doz.

paniculata. Sweet Autumn Clematis. In August or September the plants are densely covered with fragrant white flowers, followed by seeds, each of which has a grayish, fuzzy plume which gives the plant the appearance of being in bloom until winter comes. Produces dense shade all summer; train them over porches or summer-houses. 35 cts. each, \$3.50 per doz.

Mme. Edouard Andre. Large flowers of bright carmine-violet. Unusual and distinct. 75 cts. each, \$7.50 per doz.

DUTCHMAN'S PIPE (*Aristolochia sipo*). A fast-growing vine for covering porches, pergolas, etc. The 6 to 15-inch broadly reniform leaves cast a dense shade. Peculiar pipe-like flowers. 2 to 3-ft. plants, 85 cts. each, \$8.50 per doz.

HONEYSUCKLE (*Lonicera*), **Halliana.** Dark green foliage, with attractive, sweetly scented flowers, produced from July to frost. Desirable for trailing over fences, arbors, and as a ground-cover for banks; weeds will not grow through it. 35 cts. each, \$3.50 per doz.

SCARLET TRUMPET VINE. Vigorous climber, producing in midsummer handsome, trumpet-shaped flowers of reddish orange. 35 cts. each, \$3.50 per doz.

MADEIRA VINE. A rapid-growing climber which will quickly cover porch trellises, arbors, stumps, etc. Foliage light green; flowers white, small and feathery; sometimes called "Climbing Mignonette"; delightfully fragrant. Plant the roots in May. Give light protection during winter. Large roots, 10 cts. each, 25 cts. for 3, 75 cts. per doz.

SILVER LACE VINE. Rapid climber with light green, waxy foliage and curious, stringy clusters of crystal-white flowers of irregular shape and extreme beauty. 75 cts. each, \$7.50 per doz.

WISTERIA sinensis. Handsome, showy, pea-like flowers in large grape-like clusters. Well adapted for training on porches, arbors, trellises, or trees. They require a deep rich soil but the great profusion of bloom well repays one for the trouble of supplying it. Strong, 2-year, grafted plants; sure to bloom.

Purple. Long, pendulous clusters of pale blue flowers. 90 cts. each, \$9 per doz.

White. Like the above, except pure white flowers. 90 cts. each, \$9 per doz.

POSTAGE EXTRA ON PLANTS. SEE PAGE 53

HEDGE PLANTS

Hedges or living fences make the most artistic boundaries for the farm, to mark the line between highway and farm, to define the driveways or enclose the home-grounds. They add much to the value of the place. Once planted they require little attention. These are strong, thrifty, attractively shaped plants that will make desirable specimens on your lawn.

CALIFORNIA PRIVET (*Ligustrum ovalifolium*). The most popular hedge plant. A rapid grower with dark green foliage that persists until early winter. May be pruned to any shape. Unpruned, it assumes an upright, spreading habit, about 10 feet tall. 12 to 18-in. plants, \$1 for 25, \$3.50 per 100, \$16 for 500; 1½ to 2-ft. plants, \$1.50 for 25, \$5 per 100.

JAPANESE BARBERRY (*Berberis Thunbergi*). Compact-growing, much-branched low shrub whose many spines deter animals from breaking through. Its red berries persist until spring. 12 to 18-in. plants, \$1.25 for 10, \$6 for 50, \$10 per 100.

RED-LEAVED BARBERRY (*Berberis Thunbergi atropurpurea*). Exactly like the well-known Japanese Barberry except that the foliage is rich crimson, becoming brilliant scarlet when the sun falls on it. A most spectacular plant which is creating a tremendous furore. 12 to 15-in. plants, 40c. each, \$4 per doz.

We have a complete line of Hedge Trimmers
See pages 101 and 110

ROSES

All the Roses listed in this Catalogue are 2-year-old, No. 1, hardy northern field-grown plants, and, with the exception of the climbers, they are budded stock. Our Rose bushes have vigorous, strong, well-developed roots and branches, and, above all, are true to name. They are the best the nursery grows, and are stronger, will make a more thrifty growth, and give more blooms than the smaller No. 2 stock.



HYBRID TEA ROSES

Hybrid Tea Roses are extremely popular, perhaps the most popular Roses grown today. A cross between the Hybrid Perpetuals—which are not perpetual bloomers—and the Teas, which as a class are doubtfully hardy here in the North, they combine the hardiness of the former with the abundance of bloom of the latter—an ideal combination. The Hybrid Teas bloom abundantly for a month or more, beginning early in June; then as new growth is made they produce more blooms, particularly from September until hard frost. There is hardly a day, even in midsummer, when blooms may not be picked from a bed of Hybrid Tea Roses. Book on Rose Culture free with every order, when requested.

Betty Upchurch. Splendid pointed buds of coral or deep coppery pink, opening to large, semi-double flowers with petals of light flesh-pink, reinforced by the intense coppery shading on the back. Strong growing; free flowering. 65 cts. each.

Charles P. Kilham. Coral-pink or brilliant reddish orange flowers of fine form and texture. This is a much-improved Mme. Edouard Herriot. A good grower and will become very popular. \$1 each.

Dame Edith Helen. One of the most remarkable Roses in the world for its giant size, multiplicity of well-placed petals, and its sparkling, pure pink color. Extremely handsome and in great demand. 65 cts. each.

Duchess of Wellington. Great old favorite with long coppery yellow buds and huge, semi-double creamy yellow flowers. Vigorous grower. 50 cts. each.

E. G. Hill. Gorgeous dark crimson-scarlet blooms full of delicately curled petals and intensely fragrant. Plants grow well and produce an unusual number of splendid flowers. 75c each.

Etoile de Hollande. The best red Rose for garden use. Its flowers are gigantic, beautifully frilled, fragrant, and the color is deep, glowing crimson which does not fade. 75 cts. each.

Frau Karl Druschki. An immense, pure white, perfectly double Rose, sometimes nearly 6 inches in diameter, abundantly produced in June. If cut back after the first crop, it will bloom all summer, contrary to the general habit of Hybrid Perpetuals. 50 cts. each.

General MacArthur. An unusually good American Rose that has found favor in England. Brilliant glowing scarlet buds that open to strongly fragrant, full blooms; free bloomer. 65 cts. each.

Gruss an Teplitz. One of the most useful and dependable Roses. Beautiful, clear crimson-scarlet, fragrant flowers, profusely borne till frost. Most desirable for bedding and a good hedge. Vigorous grower. 50 cts. each.

Joanna Hill. Well-shaped flowers of creamy yellow, stained with brownish gold on outside of petals and deep yellow within. Fine cut-flower variety which blooms freely. 65 cts. each.

Kaiserin Auguste Viktoria. A perfectly formed white Rose of unusual beauty. Popular for many years. 65 cts. each.

Los Angeles. So fine a Rose in every way that no garden is complete without it. An attractive bud, opening to beautiful, silvery salmon-pink blooms with marvelous scent. 50 cts. each.

Margaret McGredy. Rich orange-red of intense hue. Flowers cupped, double, and most freely produced. Plants extraordinarily vigorous, with remarkably fine foliage and always in bloom. 65 cts. each.

Mevrouw G. A. Van Rossem. Spectacular in its unusual combination of coppery old-gold and scarlet. The buds are globular; the incurved open flowers are a combination of orange-yellow and red. 75 cts. each.

Miss Rowena Thom. A descendant of Radiance and Los Angeles, with gigantic, globular blooms of glowing pink tinged with gold at the base. An extraordinary grower and always in bloom. 75 cts. each.

Mme. Edouard Herriot. An indispensable Rose made famous by winning the *Daily Mail* (London) Gold Cup in 1912. Coral-red, shaded yellow and bright rosy scarlet. 65 cts. each.

Mrs. Aaron Ward. The most profuse blooming yellow Rose. Semi-double, cup-shaped, deep Indian yellow, fragrant flowers. Extremely hardy. Seventh in the twelve "Favored Roses of all America" referendum by the American Rose Society a few years ago. 65 cts. each.

Mrs. A. R. Barraclough. Enormous long buds and giant flowers of deep salmon-pink tinged with rose, and lightened with yellow. Vigorous growth and free flowering. One of the most magnificent Roses in form and size. 65 cts. each.

Mrs. Erskine Pembroke Thom. Best of the clear unshaded yellow Roses. Flowers well shaped, of medium size, and richly yellow. Fine foliage and growth vigorous. Free flowering. 75 cts. each.

President Herbert Hoover. Enormous flowers of ever-changing color. Deep copper-red in bud, golden in the center, with deep pink outer petals. In autumn it is superb. Plants very strong, with good foliage, blooming early and often. 75 cts. each.

Radiance. Large, strongly fragrant, light silvery pink to salmon-pink flowers, borne profusely all summer on long, strong stems. 50 cts. each.

Red Radiance. A sport of Radiance and equally good, differing only in the beautiful deep red color of the large globular flowers. Very hardy and of the greatest garden value. Fine fragrance. 50 cts. each.

Rev. F. Page-Roberts. Large flowers of most elegant shape and appealing color—soft buff-yellow shaded rich gold, stained on the outside of the petals with coppery red; very fragrant. One of the most beautiful and popular Roses grown. 75 cts. each.

Souvenir de Claudius Pernet. At present, the finest and most dependable yellow Rose. The color does not fade so badly as most yellows, and the flowers are freely and continuously produced. Excellent foliage. 65 cts. each.

Talisman. The most remarkable color yet produced in Roses—brilliant scarlet, shaded rose on one side of the petal and glowing golden yellow on the other, giving a startling red and yellow effect. Has long stems, and is continually in bloom. 50 cts. each.

Ville de Paris. Tall, wiry growth with large, lemon-yellow flowers of loose, globular form. Attractive and unfading color. 75 cts. each.

White Killarney, Double. Large, long-pointed buds opening to large, loose, pure white, fragrant blooms, borne on long, strong stems by robust plants. 65 cts. each.

Quantity Prices.

All 50-ct. varieties, \$5 per doz.; 65-ct. varieties, \$6.50 per doz.; 75-ct. varieties, \$7.50 per doz. Half dozen plants, any assortment of varieties, at dozen rates.

OUTSTANDING NEW ROSES

More than 150 new kinds of Roses are put on the market every year, but only a few of them are ever heard of again. It is expensive, and generally unsatisfactory to buy at random from the new introductions, but some of them are so valuable that they cannot be disregarded. Consequently, we have selected the best new varieties of the past few years, and offer them here in order that our customers may keep pace with the finest new Roses without the expense of testing the worthless sorts.



Governor Alfred E. Smith. Plant Patent No. 62

AUTUMN. HT. Red and gold buds opening to large yellow and pink flowers of most spectacular appearance. The plant is extremely vigorous and blooms profusely throughout the summer and fall. \$1 each.

CALEDONIA. HT. Very few good new white Roses appear among the novelties of each year. This is an exception. The long, ivory-tinted buds are exceedingly graceful and beautiful, and the open flowers are sufficiently full and sweet to make an outstanding Rose. Plant is tall, with sturdy stems, and produces a fair amount of exquisite bloom. \$1.50 each.

COUNTESS VANDAL. HT. Plant Patent No. 38. Stunning new Rose of coppery pink, strongly tinted with ruddy shades in the bud, opening to big, handsomely shaped flowers of striking color. \$2 each.

DOTTY. HT. Bold buds of deep golden yellow, stained with scarlet on the outside, opening to deep, fragrant flowers of clear sunflower-yellow, well shaped and long lasting. \$1.50 each.

EDITOR McFARLAND. HT. Exceedingly vigorous, free-flowering new Rose, producing superb, long-pointed buds of deep glowing pink, opening to full-petaled, beautifully shaped, fragrant blooms on long, rigid stems. An outstanding novelty, highly recommended by experienced growers. \$1.50 each.

ESSENCE. HT. Fragrance is the outstanding quality of this sturdy, tall-growing, new crimson Rose. The fully double flowers are sweet with the old-time perfume, and they are produced with unusual freedom by a very healthy and vigorous plant. \$2 each.

GOVERNOR ALFRED E. SMITH. HT. Plant Patent No. 62. Coppery pink flowers of the most unusual shade, somewhat resembling the tints seen in the lovely old Miss Lolita Armour. Plants are upright and vigorous, producing an abundance of bloom all season. \$2.50 each.

GRENOBLE. HT. An outstanding addition to the small group of really good red Roses. Flowers are beautifully shaped, fragrant, and exceedingly rich in shades of crimson and scarlet. Plant is notable for its vigor and continuous blooming habit. \$1.75 each.

HEINRICH WENDLAND. HT. Brilliant orange, scarlet, and yellow mingle in the petals of this new German Rose. This is one of the showiest varieties we have ever seen and produces an unusual quantity of highly colored bloom for a Rose of this type. \$1.50 each.

LEONARD BARRON. HT. The flat, circular flowers of this new variety have most distinct qualities of form and fragrance. Its outer petals are huge and shell-like, each inner whorl becoming smaller toward the center. Flower is coppery pink when first opening, paling through shades of tan and silvery pink as it develops. \$1.75 each.

MARY HART. HT. Plant Patent No. 8. A deep Indian red sport of the famous Talisman. Remarkable for its rich oxblood hue, and rare metallic sheen from its underlying golden yellow ground-color. Remarkably free flowering. \$2 each.

MAX KRAUSE. HT. New golden yellow Rose of great depth and substance, originated in Germany where it has won many honors at flower shows. Amateurs who have seen it here believe it has a future. \$2 each.

MRS. SAM McGREDY. HT. A Gold Medal winner from the north of Ireland, with astonishing buds and flowers of glowing orange-salmon and coppery gold. One of the best of the new varieties. \$1.50 each.

OLYMPIAD (Mme. Raymond Gaujard). HT. A Gold Medal winner in France renamed by its American introducers in honor of 1932 Olympic games. Gorgeous crimson and gold flowers, well shaped, handsome. \$1 each.

ROSLYN. HT. Remarkable for the large size and perfect form of its clear sunflower-yellow blooms. Plant grows well and produces perfect flowers. \$1 each.

SOUVENIR. HT. Plant Patent No. 25. A sport of the superb Talisman, just as yellow as Mary Hart is red. Both are wonderful variations of a wonderful Rose, exhibiting all its good qualities. \$1.50 each.



Essence

Plants by Parcel Post. If plants are to be shipped by parcel post, add to the prices given, 10 cts. for 1 plant, 20 cts. for 6 plants, 30 cts. for 12 plants.



New Dawn

CLIMBING ROSES

Present-day Climbing Roses are destined to make Rose-growing universal. Every one here listed is a strong grower, will endure neglect, bloom profusely, and after the June bloom-burst the foliage is attractive all summer. They may be used to cover porches, pillars, trellises and fences, unsightly objects, such as banks along farm-lanes, stone-piles, and ledges. Many other situations will suggest themselves to you as you study your own places. Can you picture anything more beautiful than the fence along the road festooned in June with beautiful Roses?

These hardy climbers need but little attention except pruning once a year, which is immediately after the flowering period is over. At such time very old or undesirable wood is removed. New wood will replace it and these new growths can be stopped anywhere by pinching out the tips.

By the judicious planting of Climbing Roses you can, at a small expense, increase the beauty of the home-grounds.

Price, 50c. each, \$5 per doz., except where noted. Postage extra. See page 53

Blaze. Plant Patent No. 10. Sensational new Climbing Rose originating as a seedling of Paul's Scarlet Climber X Gruss an Teplitz. Its clusters of blazing red flowers are produced in successive crops from early summer until late autumn. A true everblooming form of the widely popular Paul's Scarlet Climber. \$2 each.

Chaplin's Pink Climber. An improvement on the old-fashioned, cluster-flowering ramblers. The individual flowers are large, of a luscious shade of pink, and are produced with such an abundance as to completely conceal the plant and its support. 65 cts. each.

Climbing American Beauty. Moderately fragrant, rich rosy carmine, 3 to 4-inch blooms on long stems, profusely borne by a very vigorous, hardy plant. Succeeds in almost any situation when once established.

Mme. Gregoire Staechelin. Huge, ruffled flowers of exquisite shell-like texture and form are produced by this stunning new climber with the utmost freedom. Individual flowers are borne on long, stiff stems, occasionally carrying a side bud or two. The color is delicate shell-pink, richly splashed with ruby-crimson on the buds and outer petals. 75 cts. each.

Dorothy Perkins. Clear cherry-pink, slightly fragrant flowers, borne in great profusion and lasting for a long time; they are double and the petals crinkled, which gives them a delightfully fluffy appearance. The bright glossy green foliage persists until frost. Fifth in the 1923 "Favorite Dozen Climbing Roses" referendum of the American Rose Society.

Dr. W. Van Fleet. The most popular Climbing Rose, according to the American Rose Society's "Favorite Dozen Climbing Roses" referendum. Perfectly formed, long-pointed, deep pink buds on long stems, with several in a cluster, each expanding to about 4 inches. A vigorous grower with abundant, dark green, glossy, disease-resistant foliage that delights the eye all summer. Grows 20 feet high or more; bears hundreds of delicately perfumed blooms that make good cut-flowers.

Emily Gray. A splendid climber with leathery, glossy foliage of great beauty and large, tawny yellow flowers of most luscious aspect. One of the very few good yellow climbers, but will require protection from extremely low temperatures. 65 cts. each, \$6.50 per doz.

Jacotte. Medium-sized flowers of brilliant orange-yellow identical in tone with the Hybrid Tea, Independence Day. Extremely beautiful, hardy, and free flowering, and is rapidly becoming the most popular of the yellow or yellow-toned, hardy climbers. \$1 each.

New Dawn. Plant Patent No. 1. An everblooming form of the well-known Climbing Rose, Dr. W. Van Fleet. Its delicate flesh-pink flowers are produced in steady succession until freezing weather. The first plant to gain a patent in the United States under the new patent law. \$1.50 each.

Paul's Scarlet Climber. The purest red of all the pillar Roses. Clusters of semi-double, vivid scarlet flowers shaded crimson, that retain their color till they fall, never turning blue. Not a very tall climber but hardy and floriferous.

Primrose. (New.) Clear, light lemon-yellow flowers which do not fade white, and strong handsome foliage. The plant is hardier than Emily Gray, but the color is not so richly golden, although deeper and finer than most other so-called yellow climbers. There are very few yellow Climbing Roses worthy of the name, and by its hardiness Primrose is a marked improvement on the older sorts. 75 cts. each.

Scorcher. This blazing red Climbing Rose comes from Australia. The flowers are large, ruffled, and of an intense fiery shade most difficult to describe. It surpasses Paul's Scarlet Climber in brilliance and it is not so harsh. One of the finest climbers in existence. \$1.25 each.

Silver Moon. A wonderful Rose. Immense, semi-double, pure white blooms 4 inches across, intensified by golden yellow stamens, are borne on long, stiff stems. Very strong-growing plants.

Wichuraiana. Especially adapted where a trailing plant is desired or for a ground-cover. Flowers white, fragrant, in clusters. 50 cts. each, \$5 per doz., \$17.50 for 50.



Paul's Scarlet Climber



Polyantha Roses

PEONIES

Peonies are among the most gorgeous plants that can be grown in a garden. Given a deep, rich soil and a sunny situation they will thrive anywhere. A mulch of manure each fall will help to maintain them. Plant the roots 2 to 3 inches below the surface of the ground. Strong divisions with 3 to 5 eyes, and plenty of roots, and larger size than usually secured from the growers.

Price, 40 cts. each, \$4 per doz., except where noted

- Edulis Superba.** Large, loose, dark pink, crown type blooms. An extra-good variety for marketing. Early.
- Festiva Maxima.** Very large, pure white, globular type flowers; center petals sometimes flecked crimson. A vigorous grower and abundant bloomer. The most popular white for cut-flowers.
- Golden Harvest (Jeanne d'Arc).** Soft pink outer petals inclosing a ball-like, golden yellow center. Early-flowering and very dainty.
- Grandiflora Rosea.** Light rose; outer petals very large, inner smaller and bunched. A vigorous grower.
- Louis Van Houtte.** Very brilliant, deep carmine-rose blooms, tipped with silver and a fiery reflex; medium size; fragrant. Late.
- Officinalis Rubra Plena.** Old-fashioned, early, red variety; double and sweet. Blooms a week or more before other varieties. 50 cts. each.
- Rosea Superba.** Medium to large, pale lilac-rose blooms, center tipped cream-white. Good market bloom. Early to midseason. 50 cts. each.
- PEONIES BY COLOR.** Strong-growing plants of selected varieties that will be sure to please. By color only. **Red, White, or Pink.** 25 cts. each, \$2.50 per doz.

Peony Aristocrats

- ALBERT CROUSSE.** Big, double flowers of creamy pink, richly tinged with flesh-pink in the center. Tall plant and a profuse bloomer. 75 cts. each.
- BARONESS SCHROEDER.** Huge, beautifully formed flowers of flesh-tinted white, sometimes stained with palest pink. Fragrant and floriferous. 75 cts. each.
- COURONNE D'OR.** Strong, sturdy plants with stiff, erect stems bearing double, ruffled flowers of creamy pink blotched with yellow tints and crimson. Late. 65 cts. each.
- KARL ROSEFIELD.** Large, double, rose-shaped flowers of very bright crimson, almost scarlet. Very fine variety. 75 cts. each.
- MARIE JACQUIN.** Dainty, semi-double flowers of milky white, showing cluster of yellow stamens like a white water-lily. 75 cts. each.
- MARGUERITE GERARD.** Immense, flat flowers double to center; peach-pink, shaded darker, and very fragrant. Tall grower. 65 cts. ea.
- MONS. JULES ELIE.** Gigantic flowers of silvery mauve-pink with a high, compact center. Early-flowering. 75 cts. each.
- OCTAVIE DEMAY.** Large, pale pink with crimson markings. Like a very highly refined Cactus Dahlia. 65 cts. each.
- SARAH BERNHARDT.** Deep rose-pink. Fragrant and beautiful. 75 cts. each.
- REINE HORTENSE (President Taft).** Crisp, fluffy flowers of light rose-pink, silvered at the edges. Bold and handsome. 65 cts. each.

Peony roots are postpaid at prices given

POLYANTHA ROSES

These dwarf Roses are becoming more popular every year for garden decoration because they produce an abundance of bloom all season. The plants average 18 inches in height and are especially valuable for a hedge or border or for massing for spectacular decorative effect.

Price, 65 cts. each, \$6.50 per doz. Postage extra. See page 53.

- George Elger.** Sprays of yellow buds that open lighter.
- Gloria Mundi.** Vivid orange-scarlet flowers. Dwarf. Free-flowering.
- Golden Salmon.** Scarlet-orange flowers in big clusters.
- Kirsten Poulsen.** Tall growth—3 to 4 feet. Single, glowing red flowers in huge sprays. Extra-fine variety.
- La Marne.** Salmon-pink and blush-pink.
- Miss Edith Cavell.** Large clusters of small, semi-double, brilliant scarlet-red flowers, shaded darker.
- Yvonne Rabier.** Clusters of small, pure white flowers with creamy bases.

HYBRID PERPETUAL ROSES

These, because of their wealth of bloom, named June as the month of Roses. They are much hardier, stronger growing plants than the Hybrid Teas and bear an immense crop of bloom in June.

Price, 65 cts. each, \$6.50 per doz. Postage extra. See page 53.

- American Beauty.** A dark pink, very full and fragrant variety which used to be very popular as a florists' cut-flower and has been reasonably good outdoors in certain localities.
- General Jacqueminot.** A very popular old Rose known to everybody as the "Jack" Rose. Rich crimson, deliciously fragrant, and highly prized both for its beauty and its old-time associations.



Peonies

FLOWERING SHRUBS

There is not a farm nor suburban home that cannot be greatly improved by the use of a few good flowering shrubs. There are no hard and fast rules to follow when beautifying the home-grounds, other than that vistas or views should be retained or made—not spoiled or shut out by a misplaced tree or shrub. Irregular groups or masses of shrubs should surround the buildings and follow the fences or outline the yard, with an open space for lawn. Flowering shrubs thrive on any land. No diseases nor insects of any great importance infest them, so they seldom need spraying.

Plants by Parcel Post. Add to the prices given, 10 cts. for 1 plant, 20 cts. for 6 plants, 30 cts. for 12 plants.

ALTHÆA. Rose of Sharon. A very useful shrub with large, single or double flowers in great profusion in late summer, a time when flowering shrubs are scarce.

Pink, Purple, Red, or White varieties. 2 to 3 ft., 40 cts. each, \$4 per doz.

ALMOND, Flowering (*Amygdalus*). The pink, double flowers are produced in great abundance during May and are very fragrant. 2 to 3 ft., 75 cts. each, \$7.50 per doz.

AZALEAS. These hardy Azaleas bloom with the utmost freedom, becoming solid masses of flowers at their season, and continuing in splendor for several weeks. The plants enjoy a slight shade. A position sheltered from severe winter winds is advisable.

Amœna. Brilliant reddish purple flowers completely cover every twig. Showy and hardy. Evergreen. \$2 each.

Hinodegiri. A sparkling red variation of Amœna, with no trace of the purple. Evergreen. \$2 each.

Mollis. A dwarf, very bushy, deciduous variety. Flowers light yellow to apricot and deep orange. \$2.50 each.

BEAUTY BUSH. An exceedingly handsome ornamental shrub. The foliage and habit are attractive when the bush is out of flower and it is perfectly hardy. It grows 6 to 9 feet high when mature, and as much through, erect and twiggy, producing long, arching branches covered in spring with clusters of small, tubular flowers of the honeysuckle type, borne in such profusion that the bush is one cloud of delicate pink. Beauty Bush has all the merits of a perfect shrub—hardiness, year-round beauty in foliage and habit, and profusion of flowers of beautiful color. 2 to 3 ft., 65 cts. each.

BUTTERFLY BUSH (*Buddleia magnifica*). Large, deep rose-purple flowers in dense spikes from mid-August on. 25 cts. each, \$2.50 per doz.

CALYCANTHUS floridus. Sweet Shrub. This is the popular old-fashioned "Strawberry Shrub," with brown, sweet-scented, starry flowers, followed by pods of smooth brown seeds. 15 to 18 in., 50 cts. each, \$5 per doz.

DEUTZIA, Pride of Rochester. A very popular blush-white form, growing taller and bushier than *D. gracilis*. 2 to 3 ft., 35 cts. each, \$3.50 per doz.

Gracilis. Slender Deutzia. A small shrub with slender, often arching branches covered with pure white flowers in graceful nodding racemes. Good for edging borders. 1 to 1½ ft., 35 cts. each, \$3.50 per doz.

DOGWOOD, Coral (*Cornus alba sibirica*).

An upright shrub having bright coral-red branches with dark green leaves, pale beneath, and creamy white flowers in numerous flat-topped clusters, followed by bluish fruits. 2 to 3 ft., 40 cts. each, \$4 per doz.

Cherry, Variegated Cornelian (*C. mas elegantissima*). One of the finest variegated shrubs and a rapid grower. The leaves are broadly margined with white, and some are entirely white. 1½ to 2 ft., 50 cts. each, \$5 per doz.

Florida rubra. One of the loveliest flowering trees. Blooms glowing peach-blossom-pink, tinged darker. A specimen in full bloom is a magnificent spectacle. 2 to 3 ft., \$2.50 each.

FORSYTHIA. One of the very earliest shrubs to bloom and unsurpassed in splendor and brilliancy by other spring-flowering varieties. Branches are covered with golden yellow blooms in early spring.

Suspensa. A large, arching shrub with long, slender branches adorned by brilliant yellow flowers in early spring. Strong plants, 50 cts. each, \$5 per doz.

Spectabilis. Sturdy, erect bush with an unbelievable abundance of golden yellow flowers a shade or two darker yellow than any other variety. 2 to 3 ft., 50 cts. each, \$5 per doz.

HONEYSUCKLE, Red Tartarian (*Lonicera tatarica sibirica*). A bushy shrub, reaching 10 feet, with crimson flowers in June, followed by red fruits. 2 to 3 ft., 45 cts. each, \$4.50 per doz.

White Tartarian (*L. tatarica alba*). About the same as the above except that the flowers are white. 2 to 3 ft., 45 cts. each, \$4.50 per doz.

HYDRANGEA hortensis. Blue Hydrangea. One of the most showy of all flowering plants. When planted in moist soil, flowers may assume a pinkish hue, but blue flowers may be assured by mixing about one-half pound of alum with each bushel of soil. Water in which iron has been rusted may also be used. Plants growing out-of-doors may be protected in winter by boxing or by wrapping with straw and leaves and covering with waterproof material. 1½ to 2 ft., \$1 each.

Paniculata grandiflora. Big conical trusses of white flowers that soon assume rose and bronze tones, are borne in late summer and last till frost. Severe pruning in early spring brings big trusses of bloom. 2 to 3 ft., 35 cts. each, \$3.50 per doz.

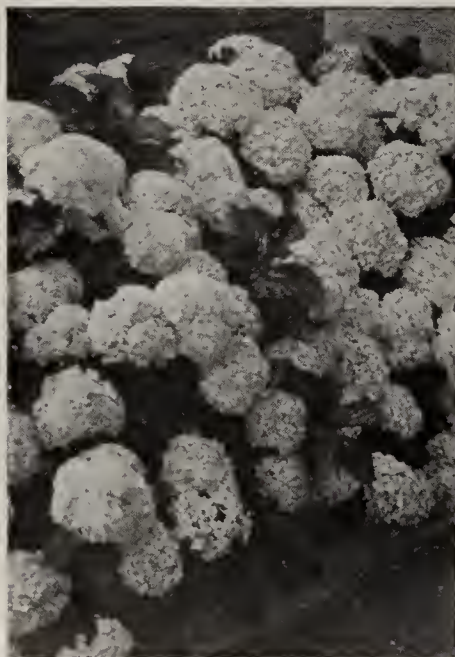
Tree-form. 3 to 4 ft., \$1 each.



Calycanthus floridus



Deutzia gracilis



Hydrangea hortensis

HYPERICUM Moserianum. Gold Flower. A very beautiful dwarf shrub of compact habit and beautiful foliage. Flowers a clear yellow, resembling a single rose. 1½ to 2 ft., 50 cts. each, \$5 per doz.

INDIAN CURRANT (*Symphoricarpos vulgaris*). Tall, slender shrub, with coral-red fruits. 2 to 3 ft., 30 cts. each, \$3 per doz.

JAPAN QUINCE (*Cydonia japonica*). Often called "Fire Bush." Scarlet and vivid pink flowers. Very early. 2 to 3 ft., 50 cts. each, \$5 per doz.

LILAC (*Syringa*). Many old Lilac bushes remain to mark an old homestead. Late in May the bush is crowned with many purple or white spikes of fragrant flowers.

Common Purple. 2 to 3 ft., 45 cts. each, \$4.50 per doz.

Lilac. Named French varieties:

L'Oncle Tom. Handsome, long clusters of very dark purple flowers.

Ludwig Spaeth. Deep reddish purple flowers in long clusters. Very unusual.

Marie Legraye. Single. Clusters of pure white, fragrant flowers.

Othello. One of the finest dark-colored Lilacs. Flowers deep purplish red, and very fragrant.

Above 4 Lilacs, Tree form, 90 cts. each;
Bush form, 75 cts. each

MOCK ORANGE, Sweet (*Philadelphus coronarius*). An upright shrub, 8 feet high, with arching branches that bear, in June, a wealth of pure white, very fragrant flowers in clusters. Each flower is about an inch across with clusters of golden yellow stamens. 2 to 3 ft., 40 cts. each, \$4 per doz.

Golden (*P. coronarius aureus*). Golden-leaved form of the preceding. 1½ to 2 ft., 50 cts. each, \$5 per doz.

Virginal. A vigorous, tall grower, with very large, double-crested, pure white, sweetly scented flowers. 2 to 3 ft., 50 cts. each, \$5 per doz.

SNOWBERRY (*Symphoricarpos racemosus*). Small, rose-colored flowers in June and July, followed by large clusters of pearly white fruit which endure into the winter. 2 to 3 ft., 35 cts. each, \$3.50 per doz.

SNOWBALL (*Viburnum opulus sterile*). The old-fashioned Snowball. A large shrub with white, ball-like clusters of flowers in May and June. Very decorative. 2 to 3 ft., 50 cts. each.

Japan (*V. tomentosum plicatum*). A rare and beautiful species from Japan. Large, globular, pure white flowers in May and June. The fall coloring of the foliage is especially fine. 1½ to 2 ft., 65 cts. each, \$6.50 per doz.

SPIRÆA, Anthony Waterer. Bright rosy crimson flowers in dense corymbs produced abundantly from July till frost. Fine for facing plantings of larger shrubs or edging walks. 1 to 1½ ft., 35 cts. each, \$3.50 per doz.

Thunbergi. A low-growing shrub with fine, delicate foliage, and a profusion of small white flowers in spring. 2 to 3 ft., 35 cts. each, \$3.50 per doz.

Spiræa Van Houttei. One of the most beautiful spring-blooming shrubs. The arching branches bend to the ground under the immense number of corymbs of small white flowers. 2 to 3 ft., 25 cts. each, \$2.50 per doz.

STEPHANANDRA flexuosa. A graceful shrub seldom more than a few feet high, with twiggy branches adorned with jagged, toothed foliage which remains in good condition all season. Cream-colored flowers in June. This is an excellent plant for growing in the shade of other shrubs or trees. 2 to 3 ft., 50 cts. each, \$5 per doz.

WEIGELA, Eva Rathke. An upright shrub 5 to 6 feet high, with arching branches covered in late May with an abundance of slightly fragrant, rich reddish purple, trumpet-shaped flowers 1½ inches long and 1 inch in diameter. 2 to 3 ft., 65 cts. each.

Rosea. An attractive shrub with spreading branches covered with dark green foliage and trumpet-shaped, slightly fragrant, rose-colored flowers. 2 to 3 ft., 35 cts. each, \$3.50 per doz.

Variegated. An exceedingly pretty variety with finely variegated foliage which lasts the entire season and is very distinct. Rose-colored flowers in June. 1½ to 2 ft., 50 cts. each.

Ornamental and Shade Trees

CATALPA Bungei. Umbrella-shaped trees on straight trunks. Heart-shaped leaves. Good for formal effects. 5 to 6 ft., \$1.50 each.

CHINESE ELM. Rapidly growing shade tree which does well along city streets. Grows 6 to 8 feet a year. 6 to 8 ft., \$2 each.

CRAB, Bechtel's Double-flowering (*Malus*). Delicate pink blossoms in the spring and handsome fruits in the fall, which are attractive to the birds. 2 to 3 ft., 75 cts. each.

JAPANESE CHERRY. Spring-flowering, bearing a profusion of pink and white blossoms of exquisite effect. Most popular ornamental. 2 to 3 ft., \$2 each.

LOMBARDY POPLAR. Slender, erect trees, planted for landscape effect, accent points, and screens. No good for shade, and very bad for sewers. 6 to 8 ft., 50 cts. each.

PLUM, Purple-Leaf (*Prunus Pissardi*). This little tree has deep purple leaves which retain their color until fall. In the spring it is covered with fine white flowers followed by wine-red fruit. 3 to 4 ft., 75 cts. each.

SILVER MAPLE. Noble 80-foot shade tree with dense branches and beautiful pointed foliage silvery on the under side. 6 to 8 ft., 75 cts. each.

RHODODENDRON. Vigorous, leathery-leaved evergreen shrubs which bear enormous heads of showy flowers in early summer. Plant in partial shade in leaf-mold and peaty soil. We offer selected varieties in grafted plants. Hybrids, Pink, Red, White, and Purple, 12 to 15 inches, \$3.



Flowering Almond. See page 56



Mock Orange, Virginal



Hypericum Moserianum



Rhododendron



Rock-Garden Plants

Rock-gardens have become very popular in America, and lawns and back yards from the Atlantic to the Pacific are being rapidly transformed into miniature mountain ranges, rocky cliffs, and stone-piles, as the genius and resources of gardeners permit.

One of the hindrances to successful rock-gardens in this country is the lack of interesting and beautiful plants to grow in them. Too many people plant annuals and border perennials in the rock-gardens, losing the entire effect and half the fun of this fascinating hobby.

True rock-garden plants are usually natives of stony places and thrive to perfection only when given similar accommodations in the garden. We have assembled here a good collection of representative rock plants, which combine both variety and dependability.

To build a successful rock-garden, a slope or bank is almost necessary to permit laying up the stones to make the proper crevices. A dry wall, made very thick at the base and sloping backward 3 inches to every foot of height, is an excellent substitute for a rock-garden, and may serve a useful purpose. Dry walls are built of rough stones, undressed, laid up in good rich soil without mortar.

The invariable rule of rock-garden construction is to lay all stones on their broadest face and tilt them all backwards so that rain will run into the earth instead of off it. Try to imitate a natural ledge with only a very small portion of each rock above ground. The stones are put in for the prosperity of the plants and not to look at.

Price, 25 cts. each, 65 cts. for 3, \$2.50 per doz., except where otherwise noted. If wanted by Parcel Post, add 10 cts. extra for each plant, 15 cts. for 3, 25 cts. per doz.

ANEMONE pulsatilla. Flowers vary from lilac to purple during April and May. Grows from 1 to 12 inches high.

ARABIS alpina. Rock Cress. White flowers borne in dense masses. They are easily grown and bloom in early spring.

ARENARIA montana. Sandwort. Close tufts covered with small silvery white flowers. Blooms very early.

ARMERIA Laucheana rosea. Thrift; Sea Plant. Bright rosy red. Grows 3 to 6 inches high. Blooms May and June.

ASTER alpinus, Goliath. Large, showy, bluish purple flowers in May and June. Grows 6 to 10 inches high.

AUBRIETIA deltoides. Purple Rock Cress. Wonderful mats of brilliant red-purple and violet toned flowers in early spring. Height 3 inches. 35 cts. each, \$1 for 3.



Aster alpinus, Goliath



Daphne cneorum. See page 59

ROCK-GARDEN PLANTS, continued

BELLIS perennis. Double Daisy. Low-growing, spring-flowering, semi-hardy perennial that is good for shady places. White, Pink, and Red.

CAMPANULA carpatica. Bellflower. Blue. A pretty species grown in compact tufts not exceeding 8 inches.

CERASTIUM tomentosum. Snow-in-Summer. A low-growing plant having silvery white foliage; an abundance of snow-white flowers.

CHEIRANTHUS Allioni. The Siberian Wallflower is a biennial and grows about 18 inches high. The small, vividly orange flowers are among the showiest things in nature.

DAPHNE cneorum. Garland Flower. Unusually attractive, dwarf, bushy evergreen plant, with the branches spreading from crown, forming a solid mass, bearing bright pink flowers at tip of every branch during May and August. 7 to 9 inches. 75 cts. each, \$7.50 per doz.

DIANTHUS deltoides rosea. A beautiful little plant with narrow leaves bearing a profusion of small crimson flowers.

ERINUS alpinus roseus. Pretty rosettes of foliage and racemes of rosy purple flowers. Invaluable for establishing on old walls or between steps. 35 cts. each, \$1 for 3.

GEUM (Avens), Mrs. Bradshaw. A splendid new variety with large, double flowers of fiery red.

Lady Stratheden. New. Double; rich golden yellow.

HELIANTHEMUM. Rock or Sun Rose. Low-growing evergreen plants that form broad clumps and are a mass of blooms from July to September.

IBERIS gibraltarica. Hardy Candy-tuft. Compact; lilac flowers.

sempervirens. Pure white flowers in spring. Dark glossy evergreen leaves. Fine edging plant.

LINUM. Flax. A desirable plant for border or rockery, growing 2 feet high. Light, graceful foliage and large flowers all summer.

MYOSOTIS palustris. Forget-me-not. A lovely dwarf plant for damp places. Spreads rapidly and carpets the ground.

OENOTHERA Youngi. Evening Primrose. A stalky, large-leaved plant with firm, shiny foliage and bright lemon-yellow flowers.

PAPAVER alpinum. Silky orange-yellow flowers on slender stems 15 inches high. Very bright and pretty.

PHLOX subulata. Moss or Mountain Pink. A nearly spring-flowering, moss-like plant with evergreen foliage.

Alba. Pure white.

Fairy. Pale blue.

Rosea. Rose-pink.

Tufa Rock. Porous. Lighter than the ordinary rock. 50 lbs. \$1.75; 100 lbs. \$3

PRIMULA Veris. Hardy Primrose. This strain includes various shades of violet-purple and lilac, as well as buff-orange and salmon. 35 cts. each, \$1 for 3.

SAPONARIA ocymoides. A spreading, leafy plant with bright pink flowers throughout most of the season. Height 6 inches.

SEDUM acre. Golden Moss. Low, tufted perennial that spreads over the ground. Bright yellow flowers.

album. A beautiful, glistening, waxy sort of plant of great vigor with delicate, frost-like flowers in mid-summer.

kamtschaticum. A bold, leafy plant 6 inches high with broad heads of brassy yellow flowers.

Lydium. Bronze foliage. Pink flowers in July.

sarmentosum. Rapid-growing plant with yellowish green foliage and yellow flowers in May and June.

Sieboldi. Round, succulent glaucous foliage. Bright pink flowers in August and September.

spectabile. One of the prettiest erect-growing species with broad, light green foliage and immense heads of handsome, showy, rose-colored flowers.

stoloniferum. One of the most desirable. Evergreen leaves and purplish pink flowers in July and August.

SEMPERVIVUM. Some resemblance to the Sedums, but better known as "Hen and Chickens."

Brauni. Bronze leaves, dull red at tip.

Fauconnetti. Little rosettes with very small leaves and red flowers.

Funcki. Green tipped, brownish rosettes. Grows rapidly.

globiferum. Leaves gray-green. Flowers pale yellow.

tectorum. Flowers pale red. Leaves with reddish brown tips.

THYMUS Serpyllum coccineum. An aromatic creeper less than 1 inch high, with dull crimson flowers in midsummer. Fine for paving-stones and wall crevices.

TUNICA Saxifraga. Tufted plants 6 inches high with pinkish white flowers on wiry stems. Very graceful.

VERONICA. Speedwell. A low-growing perennial on the foxglove order. Blue flowers.

incana. Silvery gray foliage and spikes of violet-blue flowers in July and August.

VINCA minor. A tufted, evergreen, half-trailing plant. Dark, leathery foliage and large, purple-blue flowers. Useful in dry, shady places.

VIOLA. Tufted Pansies. Best edging plant for hardy perennial border. Will bloom from May to October.

Admiration. Giant deep blue-purple.

Apricot. Exquisite apricot-yellow.

Rosy Gem. Deep violet-blue.

Mauve Queen. Light blue.

Jersey Gem. Rich pure violet.

White Perfection. Fine white.

Yellow Perfection. Fine yellow.



Viola, Jersey Gem



Primula (Hardy Primrose)



Sempervivum



Phlox subulata

Hardy Perennial Plants

Hardy perennial flowers are depended on to give the garden continuity from year to year and to afford that appearance of settled contentment and quietude which comes with their increased size and reappearance in the same places year after year.

If the ground is well prepared by deep spading and fertilizing, they will need little attention beyond keeping the surface hoed and the weeds pulled for the first year—after that they are usually big and strong enough to take care of themselves.

The plants which we offer are grown locally, two years old, and *freshly* dug.

Price, 25 cts. each, 65 cts. for 3, \$2.50 per doz., except where otherwise noted. If wanted by Parcel Post, add 10 cts. extra for each plant, 15 cts. for 3, 25 cts. per doz.



Hardy Chrysanthemums



Oriental Poppy, Mrs. Perry. See page 61



Delphinium

AQUILEGIA (Columbine), Mixed Hybrids. Wonderful colors; very long-spurred flowers.

ARTEMISIA, Silver King. Sage Bush. A striking white-leaved contrast plant. Beautiful for setting off bouquets or floral combinations.

ASTERS, Hardy. Michaelmas Daisy. Beautiful starry flowers in shades of lavender-blue and pink produced in great profusion in late summer.

CAMPANULA calycanthema. Cup-and-Saucer. Large, double flowers resembling a cup and saucer. Mixed colors.

Medium. Single Canterbury Bells. Mixed colors.

CARNATION, Hardy Border. A good hardy strain for outdoor culture. Flowers in a great variety of colors are borne from May to October.

Crimson King. Flowers bright red. Very prolific bloomer from July to November. 35 cts. each, \$1 for 3.

CENTAUREA montana. Hardy Cornflower. Grows 2 feet high. Violet-blue flowers from July to September.

CHRYSANTHEMUMS, Hardy. Bloom after other flowers have gone. **Bronze, Pink, Red, White, Yellow.**

COREOPSIS grandiflora. Tickseed. Bright yellow single flowers on long, branching stems. Will bloom all summer if flowers are kept cut.

DELPHINIUM, Gold Medal Hybrids. Hardy Larkspur. Very long spikes of the choicest colors.

Wrexham Hollyhock-flowered Strain. New giant-flowered strain of superior quality. Flowers come in blue, white, and pink combinations—many of them bicolor.

Belladonna. Light sky-blue.

Bellamosa. Dark blue.

DIANTHUS plumarius. Hardy Pinks. Low-growing, grass-like foliage; flowers clove-scented; wide range of colors.

barbatus. Hardy Sweet William. Large heads of red, white, and pink flowers in early summer.

DICENTRA spectabilis. Bleeding-Heart. An old-fashioned favorite. Its long racemes of graceful, heart-shaped pink flowers are always attractive. 50 cts. each, \$1.35 for 3.

eximia. Finely cut foliage and showy racemes of pretty pink flowers. 50 cts. each, \$1.35 for 3.

DIGITALIS. Foxglove. Spikes of tubular flowers in mixed colors, White, Rose, and Purple.

GAILLARDIA grandiflora, Mixed. Blanket Flower. Large orange-yellow, scarlet, and crimson flowers in profusion. Very valuable for cutting.

GYPSOPHILA paniculata. Baby's Breath. Small white flowers on branched stems so thick as to give the plant a white lace-like effect. Excellent for cut-flowers.

Bristol Fairy. Double pearly white flowers larger than the old-fashioned type, and produced abundantly all season. Very lovely for cutting. 50 cts. each, \$1.35 for 3.

HEUCHERA sanguinea. Coral Bells. Bright crimson flowers from June to September. Very free flowering.

HIBISCUS. Marsh Mallow. Strong, almost shrubby plants with gigantic red flowers.

HOLLYHOCKS, Double Mixed (Althaea rosea). Bold, spire-like stalks of bloom varying from red to white, also yellow.



Heuchera



Liatris. See page 61



Digitalis (Foxglove)

HARDY PERENNIAL PLANTS, continued

IRIS, German. Flag. Superbly colored varieties of this popular garden plant.

Japanese. White, gold, or blue flowers. Flowers very attractive. 35 cts. each, \$1 for 3.

LIATRIS pycnostachya. Kansas Gay Feather. Flowers purple, in dense spikes. Foliage thick and grass-like. Excellent for masses or cut-flowers.

scariosa. Spikes of deep purple flowers. Very desirable.

LILY-OF-THE-VALLEY. A dainty plant for shady places. Fragrant, bell-like, white flowers in May. A good ground-cover.

LUPINUS polyphyllus, Mixed. Grows 2½ to 3 feet tall and produces White, Pink, or Lavender-Blue flowers.

PAPAVER nudicaule. Iceland Poppy. Grows 1 foot high, with very pretty single, crinkled flowers in White, Salmon, Yellow, or Orange.

orientale. Oriental Poppy. Immense, single, bright scarlet flowers in spring.

orientale, Mrs. Perry. Orange-apricot. The best of all the pink Poppies.

PENTSTEMON barbatus Torreyi. Beard Tongue. Spikes of brilliant scarlet flowers. Grows 3 to 4 feet high.

PHYSALIS Francheti. Chinese Lantern Plant. An ornamental variety of the Winter Cherry, with orange-scarlet lantern-like fruits.

PYRETHRUM hybridum. Persian or Painted Daisy. A good hardy perennial with fern-like foliage. Fine for cutting or planting in the hardy border. Mixed colors.

PHLOX. A universal favorite and the most showy of garden plants. They grow 2 to 3 feet high, according to variety, and have large heads of bloom. Thrive in a cool, moist, well-drained soil.

B. Comte. Dark red.

Beacon. Brilliant cherry-red.

Commander. Crimson-red with darker eye.

Elisabeth Campbell. Light salmon, shading to pink at center.

Enchantress. Salmon-pink.

Fernand Cortez. Deep crimson.

Fraulein G. von Lassburg. Pure white.

Miss Lingard. Pure white, pale pink centers. The most popular and earliest white.

Rheinlander. Large, salmon-pink flowers.

Rijnstroom. Rose-pink.

R. P. Struthers. Cherry-red, suffused salmon.

Thor. Salmon-pink, suffused scarlet.

Traviata. Carmine-red, with light red sheen and blood-red eye.

Phlox, New Varieties. We consider these the best of the new sorts.

Caroline Vandenberg. Vivid blue. Free bloomer.

George Stipp. Carmine with violet-pink center.

Hauptman Koehl. Dark blood-red.

Rigoletto. Dark carmine-lilac, edged with light maroon.

Rokoko. Clear soft pink. Large flowers.

Price of above varieties, 35 cts. each, \$1 for 3, \$3.50 per doz.

PHYSOSTEGIA virginiana. Erect plants, 3 to 6 feet high, with rigid spikes of delicate lavender-pink flowers in late summer. A very useful tall border plant.

PLATYCODON grandiflorum. Balloon Flower. A very good hardy perennial producing large, showy, steel-blue flowers the whole season. Excellent for borders.

SCABIOSA caucasica. Pin-Cushion Flower; Mourning Bride. Flowers a soft shade of lavender. Grows 1½ to 2 feet high and blooms from June to September.

SHASTA DAISY (Chrysanthemum maximum), Alaska. Pure white blooms 4 to 5 inches across with yellow centers.

STATICE latifolia. Sea Lavender. Invaluable for cutting. Attains a height of 1 to 2 feet. Purplish blue flowers.

SWEET WIVELSFIELD. An unusual, handsome race of China Pinks. Fragrant and everblooming.

THALICTRUM adiantifolium. Vigorous plants with maidenhair foliage and feathery clusters of yellowish flowers.

TRITOMA pfitzeri. Red-Hot Poker. Spikes of orange-scarlet flowers.

VALERIANA officinalis. Flat heads of white flowers. Strong heliotrope scent. An old-fashioned favorite.

YUCCA filamentosa. Adam's Needle. Broad, sword-like, evergreen foliage and large, drooping, creamy white flowers on stems about 6 feet high.

filamentosa Hockerii. Variegated leaved. 50 cts. each, \$1.35 for 3.



Gypsophila, Bristol Fairy. See page 60



Pyrethrum hybridum



Valeriana officinalis



Hardy Phlox

FRUIT DEPARTMENT

Why not use fruit trees instead of shade trees for the front lawn? They cast a good shade, especially the apple tree, and in the spring they are covered with a wealth of bloom that no shade tree can equal. In addition, they produce fruit of which but few persons have enough. In making the selection of fruits to offer our customers, we believe the following will give the best results in the districts where they live. All fruit trees offered are No. 1 grade, two-year-old budded trees. Prices are f.o.b. cars, Pittsburgh, Pa. (Fruit Trees are not available.) Special prices quoted on large quantities on receipt of specifications.



Baldwin Apple

Apples

50 cts. each, \$4.50 for 10

- Baldwin.** Best all-round winter Apple in northern counties.
Delicious. The finest dessert Apple imaginable; midwinter.
Duchess of Oldenburg. Tart; midsummer.
Early Harvest. Fruit yellow; flesh white, crisp and juicy. Good for cooking. Early summer.
Grimes Golden. Delicious flavor all its own; early winter.
Jonathan. Beautiful red spicy-flavored fruits; early winter.
Maiden's Blush. Medium, smooth, pale yellow with red cheek. Late fall.
McIntosh. Spicy; bright red; late fall sort.
Northern Spy. Desirable winter sort for northern counties.
Red Astrachan. Best summer dessert and cooking Apple.
Rome Beauty. Handsome fruits of good quality; midwinter.
Stayman. Juicy, melting flesh; midwinter.
Wealthy. High quality, early fall sort.
Winesap. Dark red, juicy, high quality winter Apple.
Yellow Transparent. Earliest ripening Apple; good cooker.

Pears

55 cts. each, \$5 for 10

- Bartlett.** Without doubt the best dessert and canning Pear.
Clapp's Favorite. Superb large yellow fruits; early.
Duchesse d'Angouleme. Big, rich-flavored fruits; late.
Kieffer. A fine culinary Pear; keeps well in storage.
Seckel. Small, delicious fruits; extremely popular.

Plums

55 cts. each, \$5 for 10

- Bradshaw.** Fine, large, early, juicy Plum; early August.
Fellenberg. Delicious, juicy flesh; fine for drying.
German Prune. High-quality fruits; stands more frost than others; late August.
Green Gage. Large, greenish fruits, fine for canning.
Lombard. Handsome reddish fruits with pleasant, juicy flesh.
Shropshire Damson. Like Damson but larger, fine for butter.
York State Prune. One of the largest and best quality Plums.

Peaches

40 cts. each, \$3.50 for 10

- Crawford Early.** Yellow and of unexcelled quality.
Crawford Late. A fine yellow Peach of finest flavor.
Elberta. The standard yellow; large, highly flavored, juicy fruits in early September.
J. H. Hale. Big yellow fruits of high quality; late August.
South Haven. *New.* A variety similar to Elberta but two to three weeks earlier. Productive, well-flavored, and possesses all the good shipping qualities of the original Elberta.

Quinces

75 cts. each, \$7 for 10

- Champion.** Large, late-ripening sort of high quality.
Orange. A mighty fine-quality variety and extremely popular.

Sweet Cherries

75 cts. each, \$7 for 10

- Black Tartarian.** Fine old fruitful sort; black fruits; late.
Governor Wood. A fine home sort; russet yellow.
Napoleon. Prolific; yellow with red cheeks; midseason.
Windsor. Large, liver-colored; hangs long time; very late.

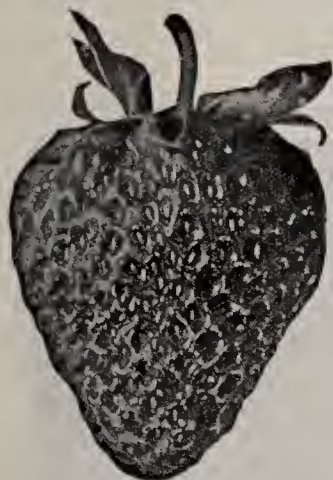
Sour Cherries

65 cts. each, \$6 for 10

- Early Richmond.** Popular early fruit; good cooker.
Montmorency. The best sour Cherry; heavy crops; midseason.
English Morello. Dark red; rich fruits; very late.



Elberta Peach



Premier Strawberry

STRAWBERRY PLANTS

Strawberries in the Garden. No home-garden is complete without a bed or a few rows of Strawberries. This earliest and most delicious fruit, coming at a time when no other fresh fruit can be had, is liked by everybody. By planting some everbearers in addition to the early varieties, you can have fresh berries for the table from June to November, or until freezing weather sets in. What greater pleasure than picking your daily supply of fresh ripe berries "right off your own vines"?

Strawberries for Profit. We know of no other crop that produces equal returns for the acreage planted or the time and labor expended. Market-gardeners and farmers are beginning to appreciate the enormous and ever-increasing demand for fancy home-grown berries and are limiting their acreage only to the amount they are able to take care of at picking-time.

Our Plants. The plants we offer are "new-ground plants" grown in virgin soil in one of the best plant-growing districts of the Northwest. They are large, strong, fully developed plants, ready to make a quick, steady growth the first year.

Order Early. The earlier you order the surer you are to get the varieties you want. Strawberry plants should be set out as early in spring as the ground can be prepared, the earlier the better. The plants will be sent as soon as they can be dug in the spring and if your ground is not ready, heel them in and cover with straw until you plant them.

DISTANCE FOR PLANTING AND PLANTS REQUIRED PER ACRE
 Commercial use. 3¾ ft. x 1½ ft. 7,920 plants
 Garden use. 2½ ft. x 1½ ft. 11,600 plants
 Everbearing Strawberries. 2½ ft. x 1½ ft. 11,600 plants

Extra-Early

Premier. The best early Strawberry without a fault. Excellent in quality, color and flavor. Its unusual firmness makes it an ideal shipper. The best early commercial berry today.

Second-Early

Cooper. The largest Strawberry ever produced. Ripens with second earlies. Berry has a sweet, delicious flavor. A new large and vigorous variety that built its reputation in one year.

Senator Dunlap. For many years has been grown as the main-crop berry throughout the country. Will produce a full crop in a wider range of soil and climate than any other variety. A very heavy bearer of good-sized, uniformly shaped berries of beautiful dark red color.

Dr. Burrill. This is truly a most remarkable Strawberry—one of the best all-round varieties ever produced. Fruits from mid-season until late and is a ready seller on the market. As a dry-weather producer it cannot be beat, the long roots taking moisture from a greater soil-depth and producing heavier foliage and crops than most varieties under similar dry-season conditions.

Medium Late

Gibson. Produces two to four fruit-stems on each plant, making it one of the heaviest bearing Strawberries. Fruit of fine quality, texture, and flavor. Excellent for table use, canning, or market. Thrives in all soils and climates.

CURRANTS

Two-year-old plants, 15 cts. each, \$1.25 for 10, except as noted

Fay. Medium to long clusters of dark red, juicy fruits.

Perfection. Large, bright red fruits; big clusters. 25 cts. each, \$2.25 for 10.

Wilder. Medium-sized, mildly acid berries in large clusters.

GOOSEBERRIES

Two-year-old plants

Downing. Whitish green. The most widely planted and highly prized sort. 25 cts. each, \$2.25 for 10.

Red Jacket. Reddish green; juicy, highly palatable flesh. 40 cts. each, \$3.50 for 10.

GRAPES

Two-year-old plants, 20 cts. each, \$1.75 for 10, except as noted

Brighton. Large bunches; big red berries of excellent flavor; productive and vigorous.

Catawba. Luscious dark red berries; best table quality; late ripening and keeps well.

Concord. The standard Grape. Rich, sweet, juicy fruits; most reliable. 15c. each, \$1.25 for 10.

Delaware. Small, sweet, spicy, delicious berries; compact growth, taking up very little room.

Moore's Early. Like Concord, but two weeks earlier.

Niagara. An extremely fine, sweet, white Grape.

Worden. Large bunches of big, black berries of high quality. Earlier than Concord.

Very Late

Aroma. Widely grown throughout the country as the standard late variety. A sure cropper. Produces quantities of large berries, uniformly round in shape, and deep glossy red in color, having a tough skin and firm flesh, making it an ideal shipper. Unusually mild and sweet and the standard late variety.

Everbearing

Mastodon. Very productive; unusually large size; brilliant, attractive color; and excellent shipping qualities. Produces fruit ninety days from planting. Pick the first crop from July to killing frosts; the second crop the following June; and the third crop from August to killing frosts in late autumn.

PRICES

	Per 25	Per 50	Per 100	Per 1,000
Premier. Extra-early	\$0 60	\$1 00	\$1 50	\$7 00
Cooper. Second-early	70	1 15	1 80	8 00
Senator Dunlap. Second-early	60	1 00	1 40	5 00
Dr. Burrill. Second-early	60	1 00	1 40	5 50
Gibson. Medium late	60	1 00	1 40	5 50
Aroma. Very late	60	1 00	1 50	6 50
Mastodon. Everbearing	1 00	1 65	2 75	13 00

Orders for 500 or more of one variety at the 1,000 rate

At the prices quoted, we pay the postage, except at the 1,000 rate which is f.o.b. nursery.

On orders for 500 plants and upward we recommend express shipment.



Concord Grapes

FIELD SEEDS



Harvesting Alfalfa

The Grains and Grass Seeds we offer are selected with special reference to their purity and germination, and great care is used to have them free from noxious foreign seeds. Every lot of seed is tested by a competent seed-analyst for purity and germination before it is offered for sale. A tag is attached to every bag showing the results of the test, also the origin of the seed. With this information, every farmer knows exactly what he is getting.

We handle the very best seeds the market affords. Quality is our first consideration. With over 50 years' experience, you can depend on us for your seeds.

Prices. Owing to the frequent changes in the prices of Field Seeds and Grains, we cannot, in fairness to our customers or ourselves, name prices in our Catalogue. Catalogue prices are largely guess-work, and we prefer to have our customers ask us for prices when they are ready to buy, specifying the quantities of the different seeds wanted. With the prices we will send samples, with purity and germination tests.

Descriptions of Grass Seeds are found on page 45.

CLOVERS

MEDIUM RED. More widely known than any other variety of Clover. Makes a standard Clover for hay purposes, as it can be cut at least twice in the season. Plants grow about 2 feet in height. Sow the seed in the early spring or late summer at the rate of fifteen to twenty pounds to an acre. If used with other seeds, ten pounds to an acre will be sufficient.

MAMMOTH RED. Sometimes called Sapling or English Clover. It is much ranker than the Medium Clover, and yields a much larger crop per acre. It does well on poor soil, is hardy, and usually will stay in the ground longer than Medium Clover. Seed cannot be distinguished from that of Medium Red by its appearance.

ALSIKE. One of the best for sowing with Timothy. The seed may be sown in spring, late summer or early autumn, and as the plants are perfectly hardy, the field seldom requires reseeding. The flowers resemble White Clover, but have a red tinge on the edge of the petals and are considerably larger. Thrives better on thin soils than Red Clover. Sow the seed in the early spring or late summer at the rate of eight to ten pounds to an acre.

SWEET. This is a legume whose value today as a soil-improver is much appreciated. It is also used for forage. It is recommended by authorities and farmers everywhere. Will do well in most any soil, but it requires lime and the seed should be inoculated. It may be sown either in the spring or fall. Sow about twenty pounds of seed to an acre. Although a great number of different species are grown in the Old World, we recommend for this climate only the White Blossom Biennial (*Melilotus alba*).

CRIMSON. This Clover is used principally for turning under as a green fertilizer, or for sowing with corn for a winter cover-crop. If desired for feed, the plants should be cut just before

Clover, continued

they come into bloom. Seed may be sown any time after the first of April at the rate of twenty pounds to the acre. Plants are strictly annual, therefore the field must be reseeded every year. Thrives on poor land and increases fertility of the soil.

WHITE. White Clover is specially valuable for lawn planting and is likewise good for pasturage. Seed can be sown any time in early spring or summer. It is perfectly hardy and very thrifty. Use from ten to twelve pounds to the acre if sown alone; about five pounds to the acre if sown on old sod or with other Clover.

ALFALFA

One of the most nutritious plants grown; valuable as a dried hay or for pasture. With proper cultivation it can be grown on some part of almost any farm in Pennsylvania or adjoining states. Two or three cuttings can be made in a season, producing from 3 to 5 tons of hay per acre. Ton for ton its feed-value equals that of wheat-bran. From 12 to 15 pounds of seed are usually sown to the acre; some growers sow only 10 pounds to the acre. We sell the very best northwestern American-grown seed.

GRIMM ALFALFA. This variety is well known and is sown because of its hardiness and productiveness. The roots are fibrous instead of having long tap-roots, and because of this it is adapted to hard-pan soil. We sell genuine certified Grimm.

Inoculate all Clover and Alfalfa seed with Stimugerm.

See page 73

TIMOTHY

A description of this old familiar hay-making grass is unnecessary here. It is recognized by almost everyone wherever found, and is probably the most extensively grown of all the grasses. It may be sown alone or with Red or Alsike Clover, or with other grasses. From twelve to fifteen pounds of seed are usually sown to the acre.

MISCELLANEOUS FARM SEEDS

Treat seeds of legume crops with Stimugerm and seed-grains with New Improved Ceresan. See page 73

SOY BEANS. A valuable plant for bringing nitrogen into the soil. It is also excellent for green or dried fodder, and the seed is very rich in protein, making an excellent dairy feed when balanced with other grains. Seed should be sown during the months of May or June, using at least one bushel to the acre, when sown broadcast, or when sown in drills, 2½ feet apart, about three pecks to the acre. We handle two varieties—**Wilson** and **Manchu**. The Wilson is a well-known variety in Pennsylvania for an early hay crop. It has fine stems, produces abundant foliage, and is also suitable for silage. The Manchu is a goodall-purpose variety. Valuable for forage or hogging down.

COWPEAS. One of the best soil-enrichers, taking the nitrogen from the air and storing it in the soil; valuable also for hay, forage, ensilage or turning under. They should be sown in this latitude in May or June, using, when sown broadcast, one and one-half to two bushels to the acre. Many different varieties are grown in the United States, but the most suitable for sowing in the North are the **Whippoorwill** and **New Era**.

CANADA FIELD PEAS. Used for hay and pasture as well as soil-improvement. Canada Field Peas should be sown as early as possible in the spring, either alone or with oats. When sown broadcast alone, at least two bushels of seed to the acre should be used, or with oats, one and one-half bushels of Peas and one bushel of oats.

DWARF ESSEX RAPE. Especially valuable for feeding sheep, hogs and cattle. Claimed to have a feed value greater than clover. Always used as a pasture and not for hay. Its growth is similar to turnip-tops, but heavier and taller. If seed is sown in May the field should be ready for pasture in July. However, seed may be sown either in early spring, summer or fall. If sown in drills, about five pounds of seed will be required for an acre; if sown broadcast, ten pounds to the acre.

BUCKWHEAT. Japanese and Silver Hull are the two leading varieties. The Silver Hull produces whiter flour, but the Japanese is more productive. The Silver Hull grows particularly well on poor soil and matures a little later than the Japanese. Seed required, one to one and one-half bushels to the acre.

MILLET. A medium-early forage plant which will grow in almost any climate or soil and produces heavy yields of fodder. The crop should be cut while the plants are in bloom, or at least before the seed forms. Seed may be sown during the month of May or the early part of June at the rate of from thirty to forty pounds to the acre. The Golden variety is considered the better for hay.

WINTER or HAIRY VETCH. One of the best legumes, whether used for a hay crop, pasture, soil-improvement or cover-crop. Thrives on light soils and is very hardy, remaining green throughout the winter. May be sown in the spring or fall, using from sixty to seventy pounds of seed to the acre when sown alone. It is better, however, to furnish a support for the Vetch by sowing rye, barley or oats with it at the rate of one-half bushel of grain and fifty pounds of Vetch to the acre.

SORGHUM or AMBER CANE. Used principally as a summer fodder for cattle. Plants will grow rapidly and at least two crops can be cut each season. If carefully cured it will make an excellent dry fodder. The seed may be sown in drills about 30 inches apart, at the rate of five to six pounds of seed for an acre. If sown broadcast, from seventy-five to one hundred pounds of seed are generally used.

SPELTZ. Resembles wheat but the grain is much larger. Very productive and makes a fine feed for stock whether it is cut green or allowed to ripen and the grain ground. The grain is particularly good for hog- and poultry-feed.

BARLEY. We have the Oderbrucker variety. It is a stiff-strawed, six-rowed, bearded Barley, the heaviest yielder that has been introduced, both in grain and straw. Two bushels of seed will be required for an acre.

SUDAN GRASS. Grows very rapidly and is recommended as a substitute for millet for a catch-crop. Attains a height of from 5 to 9 feet and has great drought-resisting qualities. It is strictly an annual and dies each year, like millet. If sown in rows, four to six pounds of seed per acre is recommended or broadcast sixteen to twenty-four pounds per acre.

WINTER WHEAT. We can supply the leading sorts of Winter Wheat. Our stock usually consists of **Leaps Prolific, Pennsylvania 44, Forward, and Klondyke**. Write us for samples and prices before seeding time.

SPRING WHEAT. If your winter wheat happens to be killed by extreme cold weather, you can still secure a crop by sowing Spring Wheat in early spring. **Marquis** is the leading variety sown in Pennsylvania.

WINTER RYE. Usually sown as a cover-crop, getting the seed into the ground before the middle of November. About one and one-half bushels of seed will be required for an acre.

SPRING RYE. Matures early and makes an excellent green food when cut, or will supply pasturage for several weeks. Distinct from the winter sorts, as these seeds are smaller.

OATS

VICTORY. A branching or tree Oats, having a white grain, with fairly thin hull. The straw is medium fine, very strong, and stands a great deal of bad weather before lodging. It ripens early and is an enormous yielder.

PATTERSON. An old and well-established variety originated by Pennsylvania State College. Medium early, with rather small, light yellow grains. The straw is fairly long but only medium stiff. A heavy yielder.

CORNELLIAN. A branching or tree-shaped variety. The kernels are long, rather slender, with very thin hulls. The grains do not make a very attractive appearance, but on account of the thin hulls it has excellent feeding quality. A remarkably heavy-yielding variety of high quality Oats for feeding.

STORM KING. A side Oats that has been grown successfully for some years. It derives its name, Storm King, from the strength of the straw, which often measures from 4½ to 5½ feet in height. It will stand the most severe winds without lodging. Heads long, containing an unusually large number of grains; yields from 70 to 100 bushels to the acre.

SWEDISH SELECT. This variety is too well known to require a lengthy description here. The quality of the grain is unsurpassed. Very thick kernel and thin shuck. Does not have a long beard like common Oats. The straw grows to a medium height, is very stiff, and consequently seldom lodges. It has proved to be a wonderful yielder.



Swedish Select Oats

FIELD CORN

We have always made a specialty of Seed Corn, supplying our trade with only those varieties that experience has proved are most suitable for the climate of Pennsylvania, Ohio, and West Virginia. Our Seed Corn is carefully hand-picked and tipped and butted before it is shelled. We aim to have every variety true to name and of high germination.

GOLDEN SURPRISE. An old-time variety maturing in 90 to 95 days. Because of quality, yield, and color, Golden Surprise is one of our most popular Corns. Ears are good size, with 14 to 18 rows of long, light orange kernels. A crackerjack good Corn for the crib, and has a host of friends.

SURE-CROP. The tremendous quantity of shelled Corn this variety produces to the acre surprises everyone who grows it. Generally there are two good ears to a stalk. The grain is very long—longer than any other—and the cob very thin. Sure-Crop has a rich, deep yellow grain, making it much desired by millers. The fodder grows from 8 to 10 feet high. It is an early Corn, ripening in 90 to 100 days.

EARLY ORANGE YELLOW DENT. A 90-day Corn that is almost a giant, stalks ranging from 8 to 11 feet high. The ears are 8 to 10 inches long, with 16 rows on a red cob. One of the earliest maturing and prettiest yellow Dents in cultivation, which has made a reputation for yield and quality.

PRIDE OF THE NORTH. A Yellow Dent variety, maturing in 90 days. Ears 8 to 10 inches long, sixteen rows on the ear, cob small, grain above medium size and closely set. One of the hardiest, and especially adapted to the northern planter; will mature farther north than any other Dent Corn.

PATTON'S IMPROVED LEAMING. Our stock of this variety has been grown in Lawrence County, Pennsylvania, for nearly fifty years and has become well acclimated in western Pennsylvania. It produces a good-sized ear, with deep, broad grains that contain a large germ, and shoots out a large, vigorous sprout that makes a strong, quick growth at the start. Grows a very leafy fodder, making it one of the best varieties for silage. In a good season, Patton's Improved Leaming has yielded as high as 75 bushels of shelled Corn per acre. It matures in from 90 to 100 days.

WHITE-CAP YELLOW DENT. An early sort which grows well on light soil; grain is yellow with white tip. Nearly as early as Pride of the North, maturing in from 90 to 95 days. Ears from 8 to 10 inches long, well filled, with sixteen or eighteen rows.

ENSILAGE CORN

SWEEPSTAKES PEDIGREE. This is not a variety, but a high-class hybrid sold under this trade name. It produces from 15 to 20 tons per acre of the highest quality ensilage. Crops of 25 to 35 tons of well-developed ears and stalks, grown from plantings made from May 25 to June 12, have been reported to the producers for the past ten years in many states. It also makes high quality Corn for cribbing, and 180 to 240 bushels of ears of husked Corn have been produced several times. Do not plant more than 1 bushel of seed on 3 acres; better to do it on 4 acres. Plant rows not less than 3½ feet apart, and drill kernels 10 to 16 inches apart in the row.

EUREKA. (Virginia-grown.) The Eureka is a Virginia-bred Corn and originated a number of years ago on the rich bottom of the James River Valley where it grows to perfection, often attaining a height of 16 to 18 feet. It is a vigorous grower, large stalks, with unusually heavy foliage, and produces from one to three ears to the stalk, according to the land. The ears average about 11 inches in length. Will produce more tons of ensilage to the acre than any other variety.

BLUE MOUNTAIN. This Corn is grown at a high altitude in the Blue Ridge Mountains in Virginia, and makes an ideal ensilage Corn. Grows to a mammoth size, full of leaves, and has a big ear. It is a vigorous-growing Corn, often knee-high after 30 days from planting, and grows 14 to 16 feet high. Our seed is selected in the fall, properly taken care of, and always shows nearly a perfect germination test.

LANCASTER COUNTY SURE-CROP. Lancaster County Sure-Crop holds first place in the estimation of many leading farmers. It is a yellow Corn, ears are very long and not proportionately thick. It grows quite tall, is very leafy and develops ears early. Some farmers claim that for husking purposes it is just as valuable a variety as it is for ensilage.

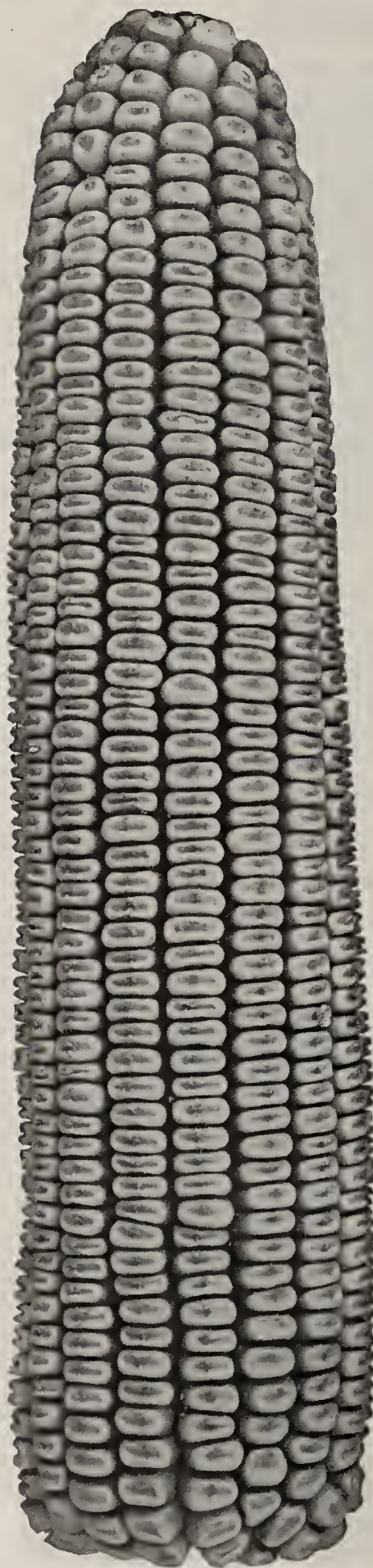
VIRGINIA HORSE-TOOTH. The popular fodder Corn of the Southern States; from 12 to 14 feet high, and stiff enough to stand up during severe storms. The seed is white, broad, and deep, with white cob.

RED-COB. A tall-growing plant, with a quantity of side leaves, making it desirable for ensilage. A favorite with a great many growers. The grain is narrow and clear white.

Protect Your Seed Corn With Stanley's Crow Repellent

It is economical to use, saves loss of seed, and insures larger yield per acre. See page 78

Write us for special prices and samples of Field Seeds and Grains. Specify quantities wanted



Golden Surprise Corn

SEED POTATOES

NORTHERN-GROWN CERTIFIED SEED

For many years we have made a specialty of supplying our trade with northern-grown Seed Potatoes. Our stock is especially grown for seed, by experienced growers in the cold North and Northwest, and is Certified Stock, U. S. Standard No. 1, high quality, true to type and free from disease.

We begin shipping Seed Potatoes as early in the spring as weather conditions will permit, usually the latter part of March. However, we urge our customers to place their orders early, while our stock of all varieties is complete, as it frequently happens that we are unable to supply certain varieties late in the season. Owing to the perishable nature of Seed Potatoes the market is subject to radical changes, and it is impossible for us to quote prices at the time our Catalogue goes to press. If Price-list is not enclosed with Catalogue, write for prices, stating quantity and variety wanted.

There is no crop so much benefited by the introduction of fresh, new seed as the Potato. ORDER EARLY WHILE OUR STOCKS ARE COMPLETE



Russet Potatoes

EARLY VARIETIES

EARLY SIX WEEKS. (Certified.) A very early Potato, somewhat resembling the Early Ohio.

SPAULDING'S EARLY ROSE. (Certified.) A seedling of the Early Rose, with pink skin, pure white flesh, much stronger foliage and a better Potato than the Early Rose in every way.

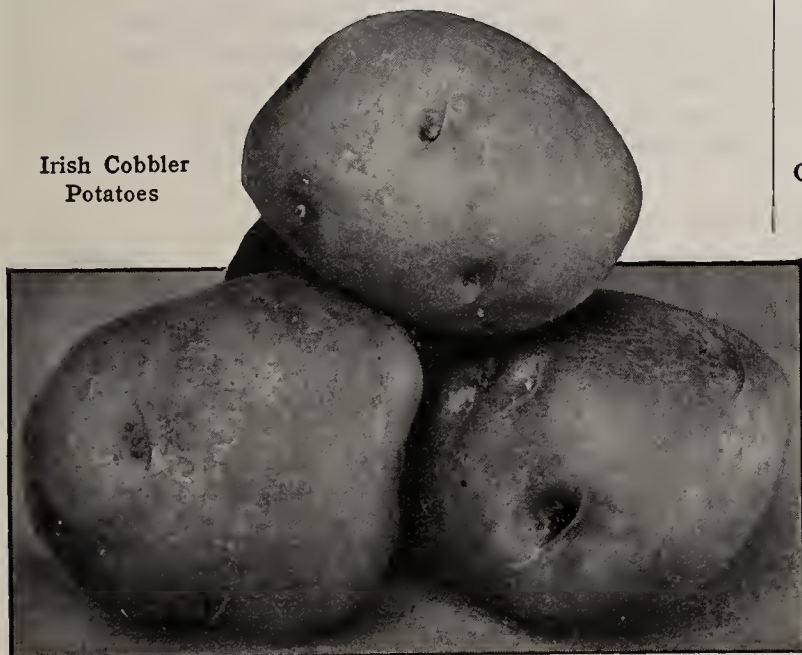
EARLY OHIO. (Certified.) A sort that is well known by market-gardeners who are after a first-early Potato for home trade; the tubers are almost round, with pink skin and of excellent quality.

IRISH COBBLER. (Certified.) An extra-early, round, white Potato. Vines yield heavily and the tubers are of extremely fine quality. An excellent all-round variety, either for the home-garden or growing commercially. About a week to ten days later than Early Ohio.

Price-list of Seed Potatoes furnished upon request

Treat Seed Potatoes with Du Bay Semesan Bel
See page 73

Irish Cobbler Potatoes



LATE VARIETIES

HIRUCO No. 9. (Certified.) Grown from Hiruco stock seed, direct from originators. This smooth-skinned Rural type Potato was produced from a seed-ball in 1905. Since its inception it has been widely distributed among particular growers and in the latter years has been cultivated in New York State by more growers entering their crops for inspection than has any other one variety. In 1919 the originators selected this variety on which to do special work for their leader, believing it to have the greatest combination of good points of any Rural type Potato. This variety has always excelled in its eating quality, heavy-yielding ability, shallow and well-placed eyes, the latter making it cut to much better advantage for seed than do many of the other well-known varieties. The extensive selection has increased the setting ability and freed this source of the diseases which are so common. Its smooth white skin makes it have a beautiful appearance and therefore satisfies a wider range of markets than a rougher skinned tuber.

RUSSET. (Certified.) It is an exceptionally heavy yielder, table quality of the very best, and with smooth, velvety, russet skin and shallow eyes. No Potato can surpass it in uniform and handsome appearance. It is very fine-grained, cooks as white as flour, and is of splendid flavor; an excellent keeper and retains its good eating qualities until late in the spring. It is one of the hardest varieties known. Its great productiveness, handsome color and resistance to diseases make it a very popular Potato and one especially suited to our locality.

CARMAN No. 3. (Certified.) Extra large, oblong, slightly flat, white. Vines are extra-good growers and yield an immense quantity of tubers of uniform size. One of the best late varieties; of excellent quality; good keeper.

SIR WALTER RALEIGH. (Certified.) The tubers vary from round to oblong in shape, uniformly of good size, white-skinned and of excellent quality. A good keeper, and, like Carman No. 3, a very heavy yielder.

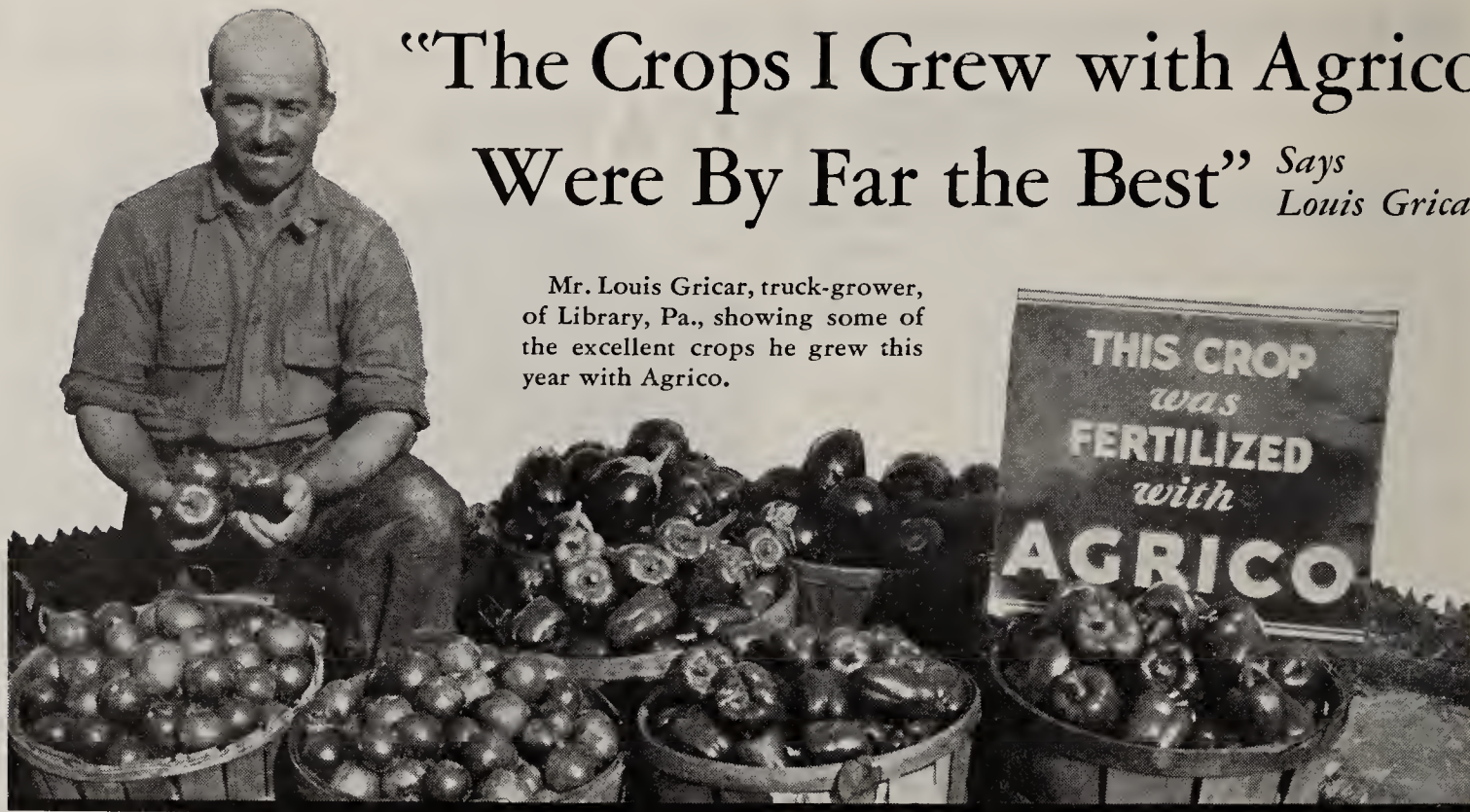
Price-list of Seed Potatoes furnished upon request

Fertilizer. We recommend Agrico or "AA" Gladiator Fertilizer as excellent for Potatoes. See page 69 for prices.

Potato Machinery. If you are interested in Potato Machinery, write for special catalogue giving detailed descriptions of Potato Planters, Diggers, and Sprayers.

"The Crops I Grew with Agrico Were By Far the Best" *Says Louis Gricar*

Mr. Louis Gricar, truck-grower,
of Library, Pa., showing some of
the excellent crops he grew this
year with Agrico.



MR. LOUIS GRICAR, one of the best-known truckers supplying the Pittsburgh market, made a fertilizer test this past season which should be of real interest to all growers who try for high-quality, early-maturing crops.

On 4 acres Mr. Gricar used Agrico for Truck, 5-10-5, *the fertilizer with the extra plant-foods*, at the rate of 350 pounds per acre. On another 4-acre piece he used a popular brand of a 2-8-5 at the rate of 400 pounds per acre. He writes:

"This test showed what a big difference there can be in the crop-producing power of fertilizers. The yield and quality of the crops grown on the Agrico were at least 15 to 20 per cent better than where the ordinary fertilizer was used and the Agrico crops ripened much earlier, enabling me to get top prices on the early market. It cost me about a dollar more per acre to fertilize with Agrico than with the other goods, but the small extra investment for Agrico brought me far greater profits."

TRY AGRICO THIS YEAR

Wherever crops are grown farmers are changing to Agrico. Why? Because they are getting better crops—crops that make more money.

There's a reason why Agrico produces better crops. It's simply this—in addition to the usual nitrogen, phosphorus, and potash found in the average fertilizer, Agrico contains *extra plant-foods* that mean *extra crop-producing power*. Agrico is the premier "AA QUALITY" Fertilizer and is made only by The American Agricultural Chemical Company, the oldest and largest manufacturers of fertilizers in this country.

The I. W. Scott Co. has handled fertilizers made by The American Agricultural Chemical Company, for more than 30 years. Because Agrico is the premier "AA QUALITY" Fertilizer and because growers who have used Agrico have obtained outstanding results, we urge all growers to try it and see for themselves the difference it can make.



LOOK FOR THIS
SEAL OF QUALITY
ON THE BACK OF
EVERY BAG.

AGRICO

The Fertilizer with the EXTRA Plant-Foods
and other "AA QUALITY" FERTILIZERS

"AA" QUALITY FERTILIZERS

Agrico Brands

The fertilizer with the extra plant-food

Agrico represents the best combination of plant-food for each crop that experience and science have produced. Each grade is compounded and blended to provide, with the highest degree of efficiency, all the essential plant-foods for each crop.

AGRICO FOR TOMATOES (4-14-6)

In 100-lb. bags

100 lbs. \$2 65	1,000 lbs. ... \$20 35
500 lbs. 10 75	2,000 lbs. ... 38 70

AGRICO FOR TRUCK (5-10-5)

In 100-lb. bags

100 lbs. \$2 60	1,000 lbs. ... \$19 50
500 lbs. 10 25	2,000 lbs. ... 36 90

AGRICO FOR CORN (3-12-6)

In 100-lb. bags

100 lbs. \$2 50	1,000 lbs. ... \$19 00
500 lbs. 10 00	2,000 lbs. ... 35 75

AGRICO FOR POTATOES (4-8-7)

In 100-lb. bags

100 lbs. \$2 50	1,000 lbs. ... \$19 00
500 lbs. 10 00	2,000 lbs. ... 35 65

AGRICO FOR GRAIN (2-12-4)

In 100-lb. bags

100 lbs. \$2 35	1,000 lbs. ... \$17 25
500 lbs. 9 25	2,000 lbs. ... 32 40

AGRICO FOR PASTURES AND TOP DRESSING (7-6-6)

In 100-lb. bags

100 lbs. \$2 65	1,000 lbs. ... \$20 50
500 lbs. 10 75	2,000 lbs. ... 38 45

AGRICO FOR FRUIT (9-6-6)

In 100-lb. bags

100 lbs. \$2 80	1,000 lbs. ... \$22 00
500 lbs. 11 50	2,000 lbs. ... 41 75

"AA" Brands

"AA" RED SEAL (5-10-5)

In 100-lb. bags

100 lbs. \$2 50	1,000 lbs. ... \$18 50
500 lbs. 9 75	2,000 lbs. ... 34 90

"AA" GLADIATOR (4-8-7)

Formerly Red Brand

In 100-lb. bags

100 lbs. \$2 40	1,000 lbs. ... \$18 00
500 lbs. 9 50	2,000 lbs. ... 33 65

"AA" CLIMAX (3-12-6)

Formerly Gold Brand

In 100-lb. bags

100 lbs. \$2 40	1,000 lbs. ... \$18 00
500 lbs. 9 50	2,000 lbs. ... 33 75

"AA" CHAMPION (2-9-5)

Formerly Columbian

In 100-lb. bags

100 lbs. \$2 25	1,000 lbs. ... \$15 75
500 lbs. 8 50	2,000 lbs. ... 29 30

Special Discount

A discount of 5 per cent will be allowed on orders of 500 pounds and upward on all Fertilizers listed on this page, when cash is remitted with order.

16 Per Cent Superphosphate

In 100-lb. bags

100 lbs. \$1 80	500 lbs. \$6 50
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Larger quantities quoted on request

20 Per Cent Superphosphate

10 lbs. \$0 50	50 lbs. \$1 50
25 lbs. 1 00	

In 100-lb. bags

100 lbs. \$2 00	500 lbs. \$7 50
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Larger quantities quoted on request

Lawn and Garden Bone-Meal

Especially adapted for lawns, gardens, and greenhouses. Ground very fine.

Nitrogen, 2.47 per cent; total Phosphoric Acid, 22.88 per cent.

5 lbs. \$0 30	Postpaid \$0 45
10 lbs. 50	70
25 lbs. 1 10	1 50
50 lbs. 2 00	

In 100-lb. bags

100 lbs. \$3 00	1,000 lbs. ... \$23 50
500 lbs. 12 25	2,000 lbs. ... 45 00

Pure Raw Bone-Meal

Used for the same purpose as Lawn and Garden Bone-Meal, but not so quick in action.

Nitrogen, 3.70 per cent; total Phosphoric Acid, 21.50 per cent.

100 lbs. \$3 25	1,000 lbs. ... \$25 00
500 lbs. 13 00	2,000 lbs. ... 48 00

Nitrate of Soda

Fifteen per cent nitrogen, equivalent to over 18 per cent ammonia. 1 lb. 15 cts., 5 lbs. 40 cts., 10 lbs. 65 cts., 50 lbs. \$1.90.

In 100-lb. bags

100 lbs. \$3 00	1,000 lbs. ... \$23 50
500 lbs. 12 25	2,000 lbs. ... 44 80

"AA" Sulphate of Ammonia

24.5 per cent Ammonia

In 100-lb. bags

100 lbs. \$3 00	1,000 lbs. ... \$23 50
500 lbs. 12 25	2,000 lbs. ... 44 80

See page 71 for prices on smaller quantities

Muriate of Potash

Imported, guaranteed 48 per cent K₂O. 1 lb. 15 cts., ppd. 25 cts.; 5 lbs. 60 cts., ppd. 75c.; 10 lbs. \$1, ppd. \$1.20.

In 100-lb. bags

100 lbs. \$3 50	1,000 lbs. ... \$28 00
500 lbs. 14 50	2,000 lbs. ... 53 95

Clay's Fertilizer

A well-known English fertilizer used principally on plants grown for exhibition.

7-lb. bag... \$1 50	56-lb. bag... \$7 00
14-lb. bag... 2 25	112-lb. bag... 12 00
28-lb. bag... 4 00	

Aluminum Sulphate

Experiments have shown that soil acidity is required for rhododendrons, azaleas and all other evergreens. Apply at the rate of about one-half pound per square yard.

1 lb. \$0 10	10 lbs. \$0 75
5 lbs. 40	25 lbs. 1 50

Leaf-Mold

Used principally for mixing with potting soil. ½ pk. 30 cts.; pk. 50 cts.; sack (about 2½ bus.) \$2.50; 5 sacks \$11.25.

Unleached Hardwood Ashes

A proper and liberal use of good Hardwood Ashes will restore worn-out lands to prime fertility, preserve grass lands through severe drought, and give trees, plants and vines renewed vigor.

5 lbs. \$0 25	500 lbs. ... \$11 50
25 lbs. 90	1,000 lbs. ... 22 00
100 lbs. 2 75	2,000 lbs. ... 42 00

Agricultural Gypsum

Agricultural Gypsum (land plaster) is an untreated, ground, natural rock fertilizer, consisting mainly of hydrated calcium sulphate. It therefore bears two essential plant-foods, calcium and sulphur. It is also used as a carrier of insecticides, such as paris green, calcium arsenate, etc.

Put up in 100-lb. paper bags

10 lbs. \$0 25	500 lbs. ... \$5 00
50 lbs. 85	1,000 lbs. ... 8 50
80 lbs. 1 25	2,000 lbs. ... 15 00

Ask for booklet, "How and Why of Gypsum"

Bald Eagle Hydrated Lime

Prepared especially for vegetable-gardens, lawns, greenhouses, whitewash, and kindred uses, besides all the various other purposes for which Lime is essential. It corrects the sour condition which exists in many soils, especially those shaded by houses or trees. About 1 pound of Bald Eagle to each 30 square feet of garden ground or lawn is sufficient to sweeten the soil.

10-lb. bag... \$0 25	500 lbs. ... \$5 25
50-lb. bag... 60	1,000 lbs. ... 9 50
100 lbs. 1 15	2,000 lbs. ... 17 00

Ask for delivered prices in carload lots

American Agricultural Limestone

Pure ground limestone, artificially dried and very finely pulverized.

80-lb. bag... \$0 90	960 lbs. ... \$5 75
480 lbs. 3 35	2,000 lbs. ... 10 00

Lōma

TRADE-MARK REG. U.S. PAT. OFF.

*Beautifies Lawns, Vegetable Gardens, Flowers,
Potted Plants, Fruit and Shade Trees*

Agricultural experts agree that the quickest and surest way to lawn and garden beauty is proper root-feeding. Plants depend upon the soil for nourishment, and unless you put food into the ground, in correctly balanced proportions, your plants cannot thrive.

Loma is a concentrated, high-quality plant-food, rich in the elements vital to plant-life—nitrates, phosphates and potash, as well as other plant-nourishment. All the food-elements that lawns and gardens need, combined and processed to make them quickly and fully available.

Loma is odorless, clean, entirely free from weed seeds, and easy to apply. It is sown like grass seed, then wet down thoroughly.

Loma provides a balanced ration for plants—the roots take it up at once and yet Loma continues to supply them throughout the entire growing season.

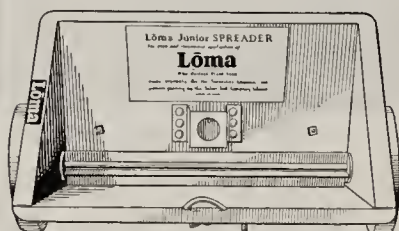
	Postpaid			Postpaid	
1-lb. can.....	\$0	10	\$0	20	
5-lb. can.....		50		65	
10-lb. bag.....		85		1	05
			25-lb. bag.....	\$1	50
			50-lb. bag.....		2 50
			100-lb. bag.....		4 00



SOIL-PREP • The New Scientific Soil-Conditioner

Everyone knows that hard, clayish soil is the sworn enemy of lawns, gardens, and flower-beds—the struggling roots cannot obtain water. The same thing is true of loose, sandy soil. Water goes through it like a sieve. Soil-Prep is rich in humus

and high in moisture-retaining properties. It breaks up hard, clayish soil, and enables it to hold water around the roots. Soil-Prep binds together loose, sandy soil—keeps the water from running through and holds it around the roots.



	Postpaid			Postpaid	
5-lb. bag....	\$0	30	\$0	45	
10-lb. bag....		50		70	
			25-lb. bag....	\$1	00
			50-lb. bag....		1 75
			100-lb. bag.....		\$3 00
			500 lbs.....		14 00

LOMA SPREADERS • Featuring the New Junior Spreader

The 16-inch and 30-inch Spreaders are as rugged and dependable as of old. Hoppers made of galvanized iron, with patented, automatic shut-off controls. The agitator in both sizes distributes Loma or grass seed in correct amounts, accurately regulated by the feeder-slides. The wide dashboard gives even distribution. A leg-rest is provided for convenient filling. The Loma Junior Spreader is a mechanically complete job—equipped with agitator, and yet the price places it within the reach of all. 16-in., \$5.75; 30-in., \$12.50; Junior \$2.50.

Sheep Manure

Cow Manure

Nature's Perfect Plant-Foods



Wizard natural plant-foods are highly concentrated and absolutely weedless. They supply humus and all the food-elements needed to make plants and lawns thrive. They are safe, will not burn plants, and are lasting in effect. Wizard will feed your plants and improve your soil at the same time. There is nothing better for lawns, flowers, trees, shrubs, and vegetables. A big 100-pound bag is ample for 1,000 square feet of lawn-area. Use Wizard and note the new beauty and productiveness of your plants.

	Postpaid			
2 lbs.....	\$0	20	\$0	32
5 lbs.....		30		45
10 lbs.....		50		70
25 lbs.....		1 00		1 40
			50 lbs.....	\$1 50
			100 lbs.....	2 50
			500 lbs.....	10 50
			1,000 lbs.....	20 00
			2,000 lbs.....	\$38 00

Use These Natural
Weedless Plant-Foods

Cattle Manure, in 25-lb., 50-lb. and 100-lb. bags, same price as Sheep Manure
Prices are f.o.b. our store or cars Pittsburgh

NITROPHOSKA

15-30-15

Nitrophoska—the concentrated complete fertilizer—contains all of the three essential plant-foods: 15% nitrogen, 30% phosphoric acid and 15% potash. A 100-lb. bag of Nitrophoska contains 60 pounds of actual available plant-food. Excellent for lawns and gardens. Early spring application produces strong, vigorous growth of rich green color. A 10-pound package is enough for 1,000 square feet.

	Postpaid		Postpaid
1-lb. pkg.....	\$0 25 \$0 35	25-lb. pkg.....	\$2 75 \$3 15
5-lb. pkg.....	90 1 05	50-lb. bag.....	4 75
10-lb. pkg.....	1 50 1 70	100-lb. bag.....	6 50

FLORANID

(UREA)

Floranid is a very rich nitrogen fertilizer (46% nitrogen) used principally during the growing season to obtain more rapid growth, richer color of foliage, and greater brilliancy of bloom. The nitrogen is in the same chemical organic form as in liquid manure. A 5-pound package is enough for five monthly applications to 1,000 square feet.

	Postpaid		Postpaid
1-lb. pkg.....	\$0 25 \$0 35	25-lb. pkg.....	\$2 75 \$3 15
5-lb. pkg.....	90 1 05	50-lb. bag.....	4 75
10-lb. pkg.....	1 50 1 70	100-lb. bag.....	9 50

Kopper's Sulphate of Ammonia

Unrivalled for stimulating early, vigorous growth. Especially recommended as a nitrogenous fertilizer for the lawn, home-garden, shrubs, trees, house-plants, and flower-beds. Contains 25¼% ammonia (20.75% readily available nitrogen)—not easily leached from the soil. Clean, odorless, absolutely free from weed seeds. Will not injure hands or clothing. Never lumps or cakes. Comes to you fine and dry like sea-sand—and stays that way. "Feeds the grass and starves the weeds" by preventing over-alkalinity of the soil. Easy and economical to use.

	Postpaid		Postpaid
26-oz. carton.....	\$0 25 \$0 35	10-lb. bag.....	\$0 75 \$0 95
5-lb. canister....	50 65	25-lb. bag.....	1 75 2 15

Ammo-Phos

AMMO-PHOS, a high-analysis fertilizer material carrying both nitrogen and phosphoric acid, is very effective as a fertilizer, particularly for lawns, gardens, and golf-courses. The phosphoric acid of AMMO-PHOS is the most readily available form of phosphoric acid on the market. The nitrogen of AMMO-PHOS is in the form of ammonia. *It is not easily leached from the soil.* This nitrogen is changed in the soil to the nitrate form in proportion to the need of the plant for it. Contains 16 per cent nitrogen and 20 per cent phosphoric acid. In 100-lb. bags.

100 lbs.....	\$3 75	1,000 lbs.....	\$31 00
500 lbs.....	16 00	2,000 lbs.....	60 00

Granular "Aero" Cyanamid

Granular Aero Cyanamid is a fertilizer carrying both *nitrogen* and *lime*. A 100-pound bag supplies 22 pounds of nitrogen and 70 pounds of hydrated lime.

The nitrogen of Cyanamid is *non-leaching*. Aero Cyanamid may be applied early in the crop-season without danger of loss of its fertilizing value. Its nitrogen is yielded up to the plant as required. Used liberally and regularly, Aero Cyanamid will take care of the normal lime requirements of the crop. If the soil is extremely acid, it should have an initial application of lime. The lime of Aero Cyanamid is in a very active form. It destroys soil-acids. It improves the soil's physical condition. It stimulates bacterial decomposition of the soil's organic matter.

100 lbs.....	\$3 00	1,000 lbs.....	\$23 50
500 lbs.....	12 50	2,000 lbs.....	45 00

"Black-Leaf" STERILIZED Tobacco-Stem Meal

"Black-Leaf" Tobacco-Stem Meal is a specially prepared product that has been thoroughly sterilized, ground, and redried. It supplies nitrogen, and especially potash, in a very readily available form and, in addition, increases the humus content of the soil. Use it for lawns, gardens, flower-beds, and golf-courses at the rate of 5 to 10 pounds per 100 square feet, two or three times a year. "Black-Leaf" Meal carries an average analysis of 1.25% to 2% ammonia and 4½% to 6% potash, water soluble.

100 lbs.....	\$2 40	1,000 lbs.....	\$17 00
500 lbs.....	9 00	2,000 lbs.....	31 50

VIGORO

Specially prepared plant food

ALL PLANT-LIFE
MUST BE FED

For Lawns, Gardens, Flowers, Shrubbery, Trees

Plants, like human beings, must receive the right nourishment. Vigoro is specially prepared to supply lawns, gardens, flowers, shrubbery, and trees with all of the plant-food elements needed for rapid, sturdy, and luxuriant growth.

Vigoro is clean, odorless, and easy to apply. It can be sown by hand, like grass seed.

Start right this year by using hardy, disease-free seeds and Vigoro. Your success in gardening will be assured. Complete directions in every bag.

	Postpaid		Postpaid
12-oz. pkg.....	\$0 10 \$0 20	50-lb. bag.....	\$2 50
5-lb. pkg.....	50 65	100-lb. bag.....	4 00
10-lb. pkg.....	85 1 05	500 lbs.....	16 00
25-lb. bag.....	1 50 1 90		

Old Gardener

Old Gardener is a complete fertilizer, scientifically balanced, containing all the elements needed for strong, healthy plant-growth. Especially prepared for lawns and ornamental plantings of all kinds. Regular applications of Old Gardener on lawns is most effective in eliminating weeds.

Use 2 pounds per 100 square feet on old lawns. Double this amount for new lawns, flowers, vegetable gardens, etc.

It is clean and odorless—a little goes a long way.

	Postpaid		Postpaid
5-lb. bag.....	\$0 45 \$0 60		
10-lb. bag.....	85 1 05		
25-lb. bag.....	1 50 1 90		
50-lb. bag.....	2 50		
100-lb. bag.....	4 00		



Agrico for Truck

A Complete Plant-Food for the Home-Garden

Agrico for Truck is a complete and perfectly balanced plant-food for all kinds of vegetation. It is used by leading gardeners and is adapted for the promotion of vigorous growth of lawns, flowers, shrubs, trees, and vegetables. It is made of the highest quality ingredients and can be depended on to give excellent results.

	Postpaid		Postpaid
25-lb. bag.....	\$1 00 \$1 40		
50-lb. bag.....	1 80		
100-lb. bag.....	2 60		

Milorganite is a specially prepared fertilizer, high in nitrogen, and so constituted as to retain its nitrogen over long periods. This assures a uniform and constant supply of this vital plant-food element throughout the season, which is so essential for fine sturdy grass.

Milorganite is also an excellent source of plant-food for flowers, trees, and shrubs. Use 40 to 50 pounds per 1,000 square feet.

	In 100-lb. bags		In 100-lb. bags
100 lbs.....	\$2 65	1,000 lbs.....	\$21 00
500 lbs.....	11 00	2,000 lbs.....	40 00



National Eezy Wear Garden Gloves

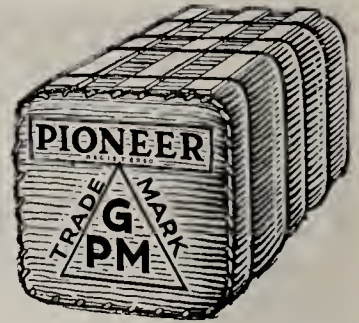
Protection from dirt, bruises, scratches and stains. Economical, too, for they will outwear six pairs of ordinary fabric gloves and are useful the year round. Washable. Sizes for women: Small, Medium, Large—for men: Medium and Large. Price, 75 cts. per pair, postpaid.

Made from select imported leather processed to render it extra soft and pliable as well as durable. Gives complete protection from dirt, bruises, scratches and stains. Economical, too, for they will outwear six pairs of ordinary fabric gloves and are useful the year round. Washable. Sizes for women: Small, Medium, Large—for men: Medium and Large. Price, 75 cts. per pair, postpaid.

PIONEER PEAT MOSS

For Better Lawns and Gardens Use G P M

Clean, Odorless, Pleasant to Work with and Free from Weed Seed



Pioneer GPM Peat Moss is preferred by hundreds of professional florists and nurserymen, for they know through experience that it is the finest substitute soil-medium that money can buy. GPM Peat Moss, the Pioneer Garden Peat Moss in all America, has made the progress you would expect of the pioneer in any field. It will prepare any soil for garden purposes and will improve the best garden soil, both physically and in fertility. Pioneer GPM Peat Moss rebuilds worn-out soil, maintains and improves fertility, and assists in the liberation of the soil's nitrogen content. In fact, it is the most economical and satisfactory granulated Peat Moss that you can buy at any price. Why accept an unknown substitute? An advertised brand is trustworthy. "Just as good" denotes an anxiety to sell something not as prominent or as acceptable as GPM. When you order Peat Moss, ask for GPM and look for the triangular trade-mark when you buy.

This material is light and dry vegetation which has been decomposing for years. Its use is a quick way to add humus to the soil. Makes heavy soil light, friable, giving better drainage. Makes light soil more retentive of moisture. Increases the action of necessary, beneficial soil bacteria. Turn under liberal quantities.

Useful for mulching in the flower- and vegetable-garden. Invaluable for Rhododendrons, Kalmias, Ferns, Evergreens, Blueberries. For lawns, sprinkle over the lawn several times during the season, giving a heavy coating for winter. The perfect mulch for roses. Used and recommended by leading rosarians.

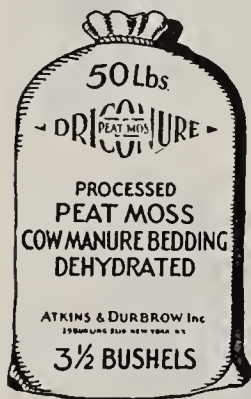
A good summer mulch, as it conserves moisture and prevents soil from baking and crusting. As a winter mulch, it insulates soil against frequent freezing and thawing effects.



A Guarantee of Quality
This trade-mark
on wrapper of
genuine

Large, compressed bales of 20 bushels loose Peat Moss, sufficient to cover 250 to 300 square feet, 1 inch deep, \$2.75; 5-bale lots, \$2.65 per bale f.o.b. Pittsburgh

Ask for booklet on Peat Moss



A New True Organic Fertilizer

Nature's Own Fertilizer

The kind of Fertilizer that will *keep* your garden healthy and beautiful throughout the year—a peat-moss cow-manure bedding, dehydrated and free of weed seeds; purely organic, it contains all the vitalizing elements of fresh cow manure and peat moss in readily available form.

Use it on your lawns and lawn. Packed in 3½ bus. (50-lb.) bags. 50 lbs. \$2.50, 250 lbs. \$12, 500 lbs. \$23, 1,000 lbs. \$44, 2,000 lbs. \$84.

Sorbex Moss Peat

Made from a selected high-quality Moss Peat, ground 25 times finer than ordinary peat moss. Ideal for top-dressing and potting-soil mixtures; corrects hard baked condition of turf; will absorb 10 to 12 times its own weight in moisture. Bag containing 10 bus. material when loosened, \$3, 5 bags \$14.50, 10 bags \$27.50.

STIM-U-PLANT

Stim-U-planT is an odorless, highly concentrated plant-food in tablet form, for garden and house plants. Stim-U-planT is easy to use. Simply insert tablets in soil about 3 inches from stem of plant, or dissolve in water at the rate of four tablets to the gallon and apply as liquid manure. Complete directions with every package.

Prices, postpaid: 10 tablets 15 cts., 30 tablets 25 cts., 100 tablets 75 cts., 1,000 tablets \$3.50.

FULTON'S PLANTABBS Odorless Plant Food Tablets

Nitrogen, Phosphoric Acid, and Potash. Best for indoor plants, window-boxes, and garden flowers, especially roses. Clean, convenient, no odor, no waste. Also used as liquid fertilizer.

Prices, postpaid: 30 tablets 25 cts., 75 tablets 50 cts., 200 tablets \$1, 1,000 tablets \$3.50. The larger sizes are quite economical.

The only plant-food tablets containing Manganese, now so highly recommended by the U. S. Department of Agriculture, in addition to



NACO

"A GOLF COURSE FERTILIZER"

A complete all-organic grass-food Fertilizer, the result of innumerable experiments in turf-culture. Naco, a

product of nature, contains elements not usually found in chemical Fertilizers, such as magnesium and iron and other rare elements in compounds which are broken up by the bacterial action of the soil-organisms. Naco contains no weed or other seeds but is not sterile, for it contains millions of beneficial bacteria that are continually at work in the soil, breaking down the different compounds of plant-food into elements which can be taken up by the grasses as plant-food.

In 100-lb. bags

100 lbs.....\$4 00	1,000 lbs.....\$35 00
500 lbs.....18 00	2,000 lbs.....68 00

Circular on request

Swift's Special Golf Fertilizer (12-6-4)

This fertilizer is carefully balanced to meet the most exacting needs of grass. It is especially suited to golf course or lawn.

In 100-lb. bags

100 lbs.....\$3 25	1,000 lbs.....\$27 00
500 lbs.....14 00	2,000 lbs.....52 00

ADCO

FOR MAKING ARTIFICIAL MANURE

Good gardening depends on manure—chemicals, prepared fertilizers, nothing can take its place. You *must* have manure.

Adco is the powder that when mixed with straw, stalks, leaves, cuttings, garden waste of any kind, turns it into manure. This Adco Manure is *real* manure, identical chemically and in fertilizing power with the old-fashioned kind, but much cleaner.

25-lb. bag (enough for 12 wheelbarrow loads of garden waste, making ½ ton of manure), \$2; postpaid \$2.40.

150-lb. bag (enough for a heap 10 x 10 x 6 ft., making about 3 tons of manure), \$10.50.

Each package is accompanied by full, explicit directions. The process is so simple that mistake or failure is almost impossible.

INCREASE your FARM PROFITS and GARDEN PRODUCTS

By Preventing Seed-Borne Disease-Losses with Du Bay Disinfectants

Regardless of the care taken in the preparation of the seed-bed and the selection of the seed, field-crop and garden failures may result from attacks of seed-borne diseases. These losses and disappointments may easily and inexpensively be avoided by disinfection of the seed, before planting, with Du Bay Seed Disinfectants. Treat all seeds before planting with the proper Du Bay Seed Disinfectant.

Semesan—for flower and vegetable seeds

Diseases carried on the seed often reduce germination and cause a poor stand, lowered quality, and unsatisfactory yields. Destroy these disease organisms without injuring the seed by treating your seeds, bulbs, roots, corms, and tubers with Semesan. Easily and quickly applied as a dust or liquid. Effective in controlling damping-off of seedlings. One ounce treats 15 to 30 pounds of seed at a cost of $\frac{1}{4}$ to 1 cent a pound.

Prices: 2-oz. tin 50 cts., 1-lb. tin \$2.50, 5-lb. tin \$11.75, 25-lb. pail \$46.25, 100-lb. drum \$180, 300-lb. drum \$525.

Improved Semesan Bel—for seed potatoes

This improved product will treat more than three times as many potatoes as the old Semesan Bel. An instantaneous treatment requiring no time-consuming soaking. Improved Semesan Bel is highly effective in controlling such destructive seed-borne diseases as scab, rhizoctonia, and black-leg. Protects the seed-piece against rotting by soil organisms. Improves germination and usually produces a bigger crop of better quality. One pound treats 60 to 80 bushels of seed.

Prices: 4-oz. tin 50 cts., 1-lb. tin \$1.75, 5-lb. tin \$8, 25-lb. pail \$31.25, 100-lb. drum \$120, 300-lb. drum \$345.

Du Bay Fungicides—

Both Semesan and Nu-Green have been used for years by hundreds of the leading golf-courses throughout America and have proved to be the most effective and practical treatments yet devised for preventing and controlling brown patch. They quickly kill the brown-patch fungi and promptly restore the diseased grass to a healthy condition.

New Improved Semesan Jr.—for seed corn

A simple, quick, inexpensive dust treatment with Semesan Jr. destroys harmful disease organisms on the seed, protects seed from rotting in cold, wet soil, controls seedling blight, reduces root- and stalk-rots, and generally increases crop-yields. Harmless to seed corn. Does not slow up rate of drop. Only 2 ounces necessary per bushel of seed field or sweet corn. Costs only $2\frac{1}{2}$ cents an acre.

Prices: 4-oz. tin 50 cts., 1-lb. tin \$1.50, 5-lb. tin \$7, 25-lb. pail \$28.75.

New Improved Ceresan—for seed-grains

New Improved Ceresan is unusually effective for controlling bunt or stinking smut of wheat, loose and covered smuts of oats, covered smut and stripe of barley, and seedling blight caused by seed-borne scab. It costs but $1\frac{3}{8}$ to $2\frac{2}{3}$ cents a bushel of seed, as only $\frac{1}{2}$ ounce of dust is used. Is easily and quickly applied—requires only twenty revolutions in a rotary treater or three turnings with the shovel. It is non-injurious to the drill. Frequently improves the stand of grain and increases yields. Reduces losses from smut and dockage.

Prices: 1-lb. tin 75 cts., 5-lb. tin \$3.



for brown patch

Both are easily applied in liquid form with any convenient type of sprayer. One pound of Nu-Green will treat from 1,000 to 2,000 square feet of turf. One pound of Semesan treats 1,000 to 3,000 square feet of turf.

Nu-Green prices: 3-oz. tin 50 cts., 1-lb. tin \$1.75, 5-lb. tin \$8, 25-lb. pail \$30, 100-lb. drum \$115, 300-lb. drum \$330.



(Jelly Medium)

STIMUGERM LEGUME INOCULATION

Alfalfa, Clovers, Soy Beans, Cowpeas, Vetch—all thrive into bumper crops when properly inoculated with Stimugerm pure-bred cultures. In addition to the increased crops, these legumes leave in the soil a heavy deposit of nitrogen which benefits all succeeding crops. Gardeners and farmers who have used Stimugerm would not be without it.

Stimugerm is a culture of bacteria especially selected and bred for maximum vitality and ability to form nodules and take nitrogen from the air.

Stimugerm is economical and easy to use. Full instructions for use accompany each package. Stimugerm is dated and guaranteed for a full year. You can obtain Stimugerm in either Jelly or Humus form.

ORDER BY VARIETY NUMBERS

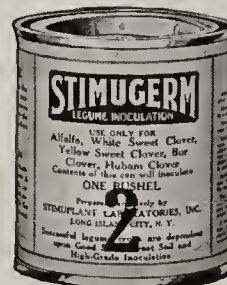
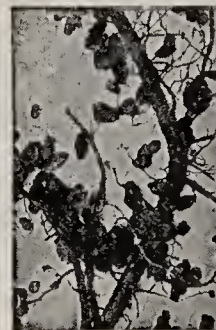
- No. 1. For Red, Mammoth, Alsike, Crimson, and White Clover.
No. 2. For Alfalfa, White Sweet Clover, Yellow Sweet Clover, Bur Clover, and Hubam Clover.
No. 3. For all Vetches, Canada Field Peas, Broad Beans, Sweet Peas, Perennial Peas, and Garden Peas.
No. 7. For Cowpeas, Lima Beans, and Velvet Beans.
No. 8. For Garden Beans, Field Beans, Navy Beans, Kidney Beans, and Scarlet Runner Beans.
No. 9. For Soy Beans, any variety.

PRICES POSTPAID

Varieties Nos. 1 and 2. $\frac{1}{2}$ bus. 35c., bus. 65c., $2\frac{1}{2}$ bus. \$1.40.
Varieties Nos. 3, 7, 8, and 9. Bus. 35c., 2 bus. 65c., 5 bus. \$1.40.

SPECIAL GARDEN SIZE. For Garden Peas, Beans and Sweet Peas, 25 cts.

Nodules with nitrogen worth their weight in gold



(Humus Medium)

INSECTICIDES AND FUNGICIDES

The Insecticides and machines for applying them, described in this Catalogue, are not novelties in the experimental stage, but have been thoroughly tested and found reliable for the uses for which they are intended.

Customers using large quantities of Insecticides are requested to write to us for special prices, specifying the quantities wanted. Prices quoted are subject to change.



Pyrox

TRADE MARK REGISTERED

Kills Bugs—Prevents Blights

All you have to do to keep your farm crops free from leaf-chewing insects and fungous diseases is this: Mix Pyrox with water and spray. No need to waste time and effort mixing Bordeaux and arsenicals. We recommend Pyrox because it will not clog the smallest nozzle. It comes out a fine mist and covers the foliage completely, sticking to the leaves even through the hardest rains. Insects die. Blight is prevented. Your farm has a chance to show what it really can do for you. One pound of Pyrox makes 5 to 6 gallons of spray.

Pyrox for Potatoes. Thorough protection against insect injuries and plant-diseases is extremely vital. Tops which are full of blight-spots and holes cannot produce the greatest possible yield. Thorough and frequent spraying with the right material and a good machine will keep the vines healthy and will yield most excellent returns on the money and time invested. Even when insects and diseases are not troublesome, copper sprays stimulate the growth of the vines and increase yields.

5 lbs. \$1.75, 10 lbs. \$3, 25 lbs. \$5, 50 lbs. \$7.25, 100 lbs. \$12.50, 300-lb. barrel \$30. (Not mailable.)

Bowker's Powdered Arsenate of Lead



Can be used either as a spray or as a dust for all external chewing insects. It will not burn or injure your crop. It is the fineness of Bowker's Arsenate of Lead that causes it not only to spread and to stick better, but to kill better. The smaller the particles, the more effective they are when taken into the organs of an insect. Unlike some brands, Bowker's mixes easily, stays well in suspension, with no trouble from clogged nozzles. Sticks to the foliage through heaviest rains. In Bowker's you obtain unusual efficiency.

at no additional cost. 1/2-lb. pkg. 20 cts., 1-lb. pkg. 30 cts., 4-lb. pkg. 80 cts., 25-lb. pkg. \$4, four 25-lb. pkgs. \$14. (Not mailable.)



Bowker's Calcide (High-grade Calcium Arsenate)

Excellent for potatoes and truck crops; it is cheaper than lead arsenate. Although formerly used only in the South to kill the cotton-boll weevil, Calcide is now employed in other sections to kill such pests as potato bugs, bean beetles, and other leaf-chewing insects. Calcide may be applied either wet or dry. 1-lb. pkg. 25 cts., 4-lb. pkg. 60 cts., 25-lb. pkg. \$2.85, four 25-lb. bags \$10.50. (Not mailable.)



Dow's Magnesium Arsenate

Experiments show that Dow's Magnesium Arsenate is an effective insecticide for the control of the Mexican bean beetle and other chewing insects. It proves fully effective without damage to tender bean foliage. As a spray, use 6 teaspoonfuls to 1 gallon of water. For dusting, use 1 part Magnesium Arsenate to 3 parts hydrated lime. 2-lb. bag 80 cts., 100-lb. drum \$22.50. (Not mailable.)

Bowker's Dry Lime Sulphur



Bowker's Dry Lime Sulphur is made by a special patented process which keeps the product in good physical condition, thus insuring its going into suspension quickly. Dry Lime Sulphur does not have some of the disagreeable features of the Liquid and is now generally accepted by fruit-growers everywhere. It is used either as a dormant spray to kill scale or as a summer spray to control fungous diseases such as scab, rot, etc. 1-lb. pkg. 35 cts., postpaid 45 cts.; 5-lb. pkg. \$1.50, postpaid \$1.65; 12 1/2-lb. bag \$2, postpaid \$2.25; 100-lb. drum \$11.50; drum, 200 lbs., sixteen 12 1/2-lb. bags \$18.50.

Bowker's Liquid Lime Sulphur (Concentrated)

Prepared from the highest grade of lime and the purest sulphur, combined in especially designed apparatus and in quantities so large as to allow plenty of time for storage and settling. Thus, the solution which reaches you is cherry-red in color, clear and sparkling. It will not crystallize, thicken up in the barrel, or clog the finest nozzles. If used according to directions, Bowker's Lime Sulphur will kill every scale that it touches. 1-qt. can 45 cts., postpaid 60 cts.; 1-gal. can 90 cts., postpaid \$1.20; 5-gal. can \$3.25, 30-gal. bbl. \$7.80, 50-gal. bbl. \$9.50. Containers not returnable.

Stewart's Lime-Sulphur Hydrometer

Gives specific gravity and Baumé readings. Complete with test-jar and instructions for use. \$1.25, postpaid \$1.50.

Bowker's Powdered Bordeaux Mixture



A powerful fungicide for the control of blights, rusts, and rots on any crops where Bordeaux is recommended by the experiment stations or other agricultural authorities. Fine, light, and fluffy, Bowker's Bordeaux mixes easily and completely. Hence it covers evenly and sticks well to the foliage. When bugs or worms are present, use Bowker's Pyrox in place of Bordeaux, as Bordeaux contains no poison. Bowker's Powdered Bordeaux Mixture must pass rigid tests both as to quality and fineness, etc. 1-lb. carton 30 cts., postpaid 40 cts.; 4-lb. bag 75 cts., postpaid 90 cts.; 25-lb. bag \$3.50, postpaid \$3.90; four 25-lb. bags \$12.

C. P. O.

Insecticide Soap-Spreader

C. P. O. is a Soap-Spreader that replaces fish-oil-soaps.

It is used as a Spreader for both nicotine and pyrethrum when spraying for many forms of aphids, red spider on evergreens, mealy bug on chrysanthemums, lace-bug on azaleas and rhododendrons, juniper scale, euonymus scale, pine-needle scale, harlequin cabbage-bug, and most insects infesting plants grown outdoors and in greenhouses.

It is odorless, non-poisonous, and does not discolor the foliage.

C. P. O. Liquid

	Postpaid	
1-qt. cans.....\$1 00	\$1 15	5-gal. cans.....\$7 50
1-gal. cans.....2 00	2 30	10-gal. cans.....11 50

C. P. O. Solid

	Postpaid	
6-lb. cans.....\$1 75	\$1 95	50-lb. kegs.....\$9 50
25-lb. cans.....5 50	5 90	100-lb. kegs.....15 50

The postal regulations will not permit poison to be sent through the mail. Therefore insecticides containing poisons cannot be sent parcel post, and must be sent by express or freight. On non-poisonous insecticides, the postpaid prices are given in connection with the price.

B. G. Pratt's Spray Products

SCALECIDE

A Miscible Oil Dormant Spray

Dormant and Delayed Dormant Spray

Since 1904, Scalecide has been famous for its effectiveness against the San José scale and all other scale insects, because it has always been a miscible oil of the highest quality. But Scalecide is not only a scale spray, it kills all other pests which winter on the tree. It is the complete dormant spray. Applied as a delayed dormant spray in the spring, diluted 1 to 15 (12 gallons to a 200-gallon spray tank), Scalecide controls aphids, European red mite, pear thrips, and red bug; diluted 1 to 12½ (15 gallons to a 200-gallon spray tank), it also controls leaf-roller. Applied in the fall (1 to 15), Scalecide controls peach leaf-curl and pear psylla. Either fall or spring spraying with Scalecide (1 to 15) controls scale, bud-moth, case-bearer, leaf-miner and fungous cankers.

No Nicotine Required

The fact that Scalecide, applied as a delayed dormant spray, controls aphids without nicotine, means much more than the saving of cost of the nicotine; it means the control of aphids year in and year out by the simple method of spraying annually with Scalecide.

Controls European Red Mite

Scalecide, applied as a delayed dormant spray, also kills the eggs of European red mite. In New England, where red mite has been a serious pest for several years, Scalecide has been used with truly remarkable success. Tests at both the Connecticut and Massachusetts Experiment Stations have conclusively proved its effectiveness.

Scalecide-Sulfocide Combination

Scalecide 1 to 100, combined with Sulfocide 1 to 200, is the ideal pre-pink and pink spray for apples. It not only controls late-hatching aphids and aphids which the ants bring on to the trees after the dormant spray, but also thrips, red bug, and soft-bodied sucking insects.

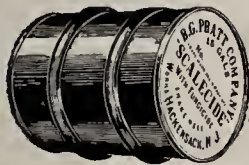
This combination is a strong fungicide for first protection against scab, but it costs less than Nicotine alone, not counting the scab-protection at all.

It gives the foliage a lustrous waxed green color, and when harvest comes the fruit is noticeable for its beautiful color and finish.

PRICES

1 qt.	\$0 60	Postpaid	\$0 85
1-gal. can.	1 40		1 90
5-gal. can.	4 90		
15-gal. drum \$10. Returnable drum extra \$2.	12 00		
30-gal. drum \$16.50. Returnable drum extra \$2.50	19 00		
50-gal. drum \$23.50. Returnable drum extra \$3.	26 50		

Cost of drum will be refunded when returned to B. G. Pratt Co., Hackensack, N. J., prepaid
Price on 5 barrels and upwards quoted on request. ASK FOR SCALECIDE BOOKLET.



TAR-O-WASH

Dormant Aphid Control

Tar-O-Wash is the latest development for the control of aphids on fruit trees. A new type of spray following the latest experiment station recommendations. In addition to the tar oil, Tar-O-Wash contains a highly refined lubricating oil for scale and red-mite control. Is very effective against the egg-type of scale such as oyster-shell and scurfy scale. Also against apple bud moth and cherry aphids. Generally dilutes 4 to 5 gallons to the hundred. Made by the makers of Scalecide.

PRICES

48-gal. drum \$16.80. Returnable drum extra \$3. Total \$19.80.

Cost of drum will be refunded when returned to B. G. Pratt Co., Hackensack, N. J., prepaid

PRATT'S "83"

An Oil-Emulsion Dormant Spray

An unusually high type of oil emulsion for dormant spraying. Contains from 83 to 85 per cent of oils selected with the greatest margin of safety and efficiency. Combined and made into a dormant oil emulsion as only Pratt knows how to make oil-sprays. Will not freeze. Will combine with lime-sulfur, bordeaux, or nicotine. Generally dilutes at 4 gallons to the hundred. For special pests, follow experiment station recommendations as to dilutions needed. Ask for leaflet.

PRICES

48-gal. drum \$12.25. Returnable drum extra \$3. Total \$15.25.

SULFOCIDE

A Better Summer Spray

A concentrated liquid sulfur fungicide in soluble form. When sprayed decomposes into sulfur in its finest colloidal form on the fruit and foliage. For apple scab, brown rot of peaches, plums, and cherries; for blight and rot on potatoes, tomatoes, and melons. One of the finest bean sprays known. Used for mildew and rust on flowers and shrubs. Dilutes 1 gallon to 200 gallons of water.

PRICES

1-pt. can.	\$0 50	Postpaid	\$0 80
1-qt. can.	85		1 15
1-gal. can.	2 25		3 05
5-gal. can.	7 50		
10-gal. can.	13 50		
30-gal. drum.	33 00		
50-gal. drum.	50 00		

SPRAYERS AND DUSTERS

We offer a complete line of hand and power Sprayers and Dusters. On pages 111 to 115 in this catalogue we show a line of Sprayers and Dusters. In addition, we offer a complete line of power orchard Sprayers and power and traction potato Sprayers, complete catalogue and price-list of which will be sent upon request.

**"The Complete
Insecticide"**
Controls both chewing
and sucking
insects

RED ARROW

NON-POISONOUS

INSECT SPRAY

(PYRETHRUM DERRIS SOAP)

The Perfected
Pyrethrum—
Rotenone
Garden Spray

KILLS THE MEXICAN BEAN BEETLE
AND A HOST OF OTHER RESISTANT INSECTS, INCLUDING:

Harlequin Cabbage Bug
Cucumber Beetle
Asparagus Beetle
Squash Bug

Aphis (Plant-Lice)
Leaf Hoppers
Dahlia Beetles
Rose-Chafer

Red Spider
Mealy Bug
Caterpillars
Aster Beetle

Gladiolus Thrip
White Fly
Cutworms
Sod Webworm

WHEN USING RED ARROW it is not necessary to add soap—simply mix with water. RED ARROW is highly concentrated, therefore more economical to use. For example: 2 teaspoonfuls RED ARROW in 1 gallon of water (without using additional soap) makes a solution strong enough to kill the Mexican Bean Beetle, Asparagus Beetle, Rose-Chafer, and others—for most purposes 1 teaspoonful in 1 gallon of water is sufficient.

NON-POISONOUS to humans, animals, and birds—NON-INJURIOUS to plant-tissues or soil.

		Postpaid
1 oz.....	\$0 35	\$0 40
3 1/2 ozs.....	1 00	1 10
1/2 pt.....	1 75	1 90
Pt.....	3 25	3 45
Qt.....	6 00	6 25
Gal.....	17 50	17 90

Black Arrow Insect Dust for Those Who Prefer a Dust

Non-poisonous—composed of pyrethrum powder and other insecticidal factors—very effective.

		Postpaid			Postpaid
1 lb.....	\$0 65	\$0 75	10 lbs.....	\$4 75	\$5 00
5 lbs.....	3 00	3 15	25 lbs.....	10 00	10 40

**NO
FUSS**

WITH
THIS
SPRAY

A Complete Spray

Nicotine Pyrox

TRADE MARK REGISTERED

Nicotine Pyrox protects plants against insect pests, blight, and other fungous diseases. Because it contains all the necessary ingredients properly and scientifically blended, Nicotine Pyrox is a complete garden spray. It contains nicotine to combat sucking insects, arsenic poison to control leaf-eating insects, as well as a copper ingredient which provides protection against fungous diseases.

Nicotine Pyrox comes in a mixed paste form, ready to use. Just dilute with water, and spray. It sticks to the

foliage and does not easily wash off, providing a lasting protection. The paste form of spray material is recognized by authorities as the most efficient form of spray material because it permits the finest mist-like spray which settles like fog over the plant, completely covering the surface of the foliage. Such a fine mist-like spray as Pyrox provides is possible only because Pyrox is a chemical precipitate which makes the minute Pyrox particles many times finer than any dry, powdered material can be ground.

10-oz. jar (makes 2 gals. spray) 50 cts., 5-lb. drum \$1.75, 10-lb. drum \$3. (Not mailable.)

A QUARTET OF ROSE-GROWING AIDS

Aphistrogen
KILLS APHIS—INSECTICIDE

Kills Aphis (Plant-Lice)

To kill aphis quickly, use Aphistrogen, a non-poisonous, invisible spray, non-injurious to plant-life. Simply mix with 60 times its volume of water.

		Postpaid
2 ozs.....	\$0 50	\$0 60
1/2 lb.....	1 25	1 40
1 lb.....	2 25	2 40
2 lbs.....	3 50	3 70
12 lbs.....	15 00	15 25

Fungtrogen
FUNGICIDE AND STIMULANT

Controls Mildew and Black-Spot

A preventive and remedy for mildew, black-spot, and other fungous diseases. Adds vigor to the plant. Mix with 60 times its volume of water.

		Postpaid
4 ozs.....	\$0 45	\$0 55
1/2 pt.....	75	85
1 pt.....	1 25	1 40
1 qt.....	2 00	2 25
1 gal.....	6 00	6 30

Insectrogen
KILLS MOST LEAF-EATING INSECTS

Destroys Leaf-eating Insects

Leaf-eating insects, such as Japanese beetles, slug-worms, etc., may be killed with Insectrogen. Mix with 60 times its volume of water.

		Postpaid
4 ozs.....	\$0 60	\$0 70
1/2 pt.....	1 00	1 10
1 pt.....	1 75	1 90
1 qt.....	2 75	3 00
1 gal.....	8 00	8 30

TRI-GEN

**Fungicide-Insecticide
Plant-Stimulant**

Tri-ogen Spray Treatment gives complete protection against all diseases and insect pests. It is easily applied and also acts as a plant-stimulant.

		Postpaid
A. Small Kit.....	\$1 50	\$1 60
B. Medium Kit.....	4 00	4 15
C. Large Kit.....	6 00	6 25
D. Estate Kit.....	20 00	20 40

Kayso Spray Spreader and Adhesive

Kayso is the combined casein spreader and adhesive, recommended by experts in horticulture and used by progressive fruit- and vegetable-growers and florists throughout the United States.

Because of increased spreading and wetting properties, a tank of spray containing Kayso will cover more trees than ordinary spray. Kayso reduces waste of spray by preventing it from collecting in drops and rolling off the smooth surfaces of fruit, leaves, and bark. Kayso raises the market value of your fruit by reducing spray-burn and by producing finer finished and more evenly colored fruit. 2 lbs. 50 cts., postpaid 60 cts.; 100 lbs. \$16.50.



Acme Dusting Sulphur

Controls mildew, black-spot, leaf-spot, and other fungous diseases on roses, chrysanthemums, phlox, delphiniums, snapdragons, and many other plants. 3-lb. sifter carton, 40 cts., postpaid 55 cts.

"Brooklyn Brand" Commercial Flour Sulphur

For use in making lime-sulphur solution and for dusting; 99½ per cent pure. Lb. 15 cts., 5 lbs. 50 cts., 10 lbs. 75 cts., 25 lbs. \$1.50, 50 lbs. \$2.25, 100 lbs. \$3.50, 500 lbs. \$16.

Bowker's Monohydrated Copper Sulphate

For use in all home-mixed dusts requiring Copper Sulphate. Contains approximately 35 per cent Metallic Copper. 12½-lb. bag \$2, 100-lb. drum \$10.

Copper Sulphate (Blue Vitriol)

Used for making Bordeaux Mixture solution. Lb. 20 cts., 5 lbs. 65 cts., 10 lbs. \$1, 50 lbs. \$3.75, 100 lbs. \$6.50, 450-lb. bbl. \$25.50.

"Bell-Mine" Rotary Kiln Lime

Used in fruit-tree and vegetable spraying mixtures. Has the endorsement of leading agricultural authorities for Bordeaux Mixtures and for all other home-mixed insecticides and fungicides. Furnished in either pulverized, pebble, or lump form. 180-lb. steel pkg. \$2.65. Larger quantities quoted on request.

Vermol Worm Eradicator

For Golf Greens and Fine Lawns

The best of the non-poisonous class of worm-killing preparations. A powder that is harmless to animals, but remarkably effective in promptly bringing earthworms to the surface and killing them. Apply Vermol at the rate of one pound to 18 square feet and water in thoroughly. Vermol will not injure the grass.

25 lbs. \$2 25	500 lbs. \$27 50
50 lbs. 3 75	1,000 lbs. 50 00
100 lbs. 6 00	2,000 lbs. 95 00



Hammond's Slug-Shot

Hammond's Slug-Shot is used from ocean to ocean. A light, composite, fine powder, it is easily distributed either by dusters, bellows, or in water and sprayed. It is thoroughly reliable in killing the

Currant-Worm	Cutworms
Potato-Bug	Sow-Bugs
Cabbage-Worm	Lice on Fowls
Slug on Roses	Bugs on Melons
Mexican Bean Beetle	
1-lb. can. \$0 25	Postpaid \$0 35
5-lb. can. 85	1 00
25-lb. bag. 3 50	3 90

Atlacide

A Non-Poisonous Weed Killer in Powder Form

Will exterminate all undesirable vegetation including Poison Ivy, Canada Thistle, Johnson Grass, etc., without danger of poisoning humans or animals. Especially recommended for obtaining weed-free driveways, paths, tennis-courts, and gutters. A pound will kill about 100 square feet of weeds.

1-lb. size. \$0 50	Postpaid \$0 60
3½-lb. size. 1 50	1 65
15-lb. drum. 3 50	3 85
50-lb. drum. 7 00	
100-lb. drum. 13 50	

Hammond's Weed Killer

Hammond's Weed Killer has been in use for many years, to prevent the growth of weeds. Will, naturally, kill any kind of vegetation without distinction, so it must be used cautiously where grass is desired. Dilute 1 gallon to 30 or 40 gallons of water. Qt. 50 cts., gal. \$1.50, 5 gals. \$6.25, 30-gal. drum \$30.

Climax Lawn Sand

Kills weeds in the lawn without injury to the grass

A chemical preparation that will destroy Plantain, Dandelion, and all other weeds in lawns, golf greens, etc. 3½-lb. can 75 cts., postpaid 90 cts.; 7-lb. can \$1.35, postpaid \$1.60; 14-lb. can \$2.50, postpaid \$2.80; 28-lb. can \$4, postpaid \$4.45.

S-W Pruning Compound

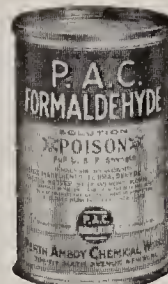
Possesses all the qualities necessary in a preparation to properly protect pruning-wounds. It successfully checks the weathering of the wound and also prevents the growth of bacteria. 1-pt. can 45 cts., postpaid 60 cts.; 1-qt. can 75 cts., postpaid 90 cts.; 1-gal. can \$2.50, postpaid \$2.80.

Selocide

Kills Red Spiders

Selocide is the new specific poison for destroying red spiders. Except under certain weather conditions, it is perfectly safe to use, when correctly diluted, on tender hothouse or garden plants, but should not be applied to vegetables or food-crops.

1-qt. can. ... \$1 00	10-gal. drum. \$22 50
1-gal. can. ... 2 75	15-gal. drum. 27 50
5-gal. drum. 12 00	30-gal. drum. 51 00
One quart makes 12½ gallons of spray.	



Formaldehyde

For wheat and barley smut, use one pint of Formaldehyde in 40 gallons of water. Sprinkle or dip seed in tubs; cover several hours; sow damp. For oat smut, spray oats with one pint Formaldehyde in 10 pints of water. Sack or sow.

* For Potato Scab and Rhizoctonia

Soak potatoes 3 or 4 minutes in warm solution (124° to 126° Fahr.) of 1 pint Formaldehyde in 15 gallons water. Small lots on the stove in washboiler; larger lots in tank heated with tank heater or by steam from tractor or other boiler.

Treat soil with Formaldehyde to overcome root-rot of most vegetables (U. S. Bulletin No. 217). Will prevent onion smut, lettuce rosette and rot, tobacco bed-rot, and damping-off fungi.

Lb. can 35 cts., 10 1-lb. cans \$3.25, 50 1-lb. cans \$14, 60-lb. keg \$9.50.

Ask for booklet and full directions.

Ansul Dust

Controls Damping Off of Vegetable and Flower Seedlings

Damping off and root-rot of seedlings are usually caused by living germs in the soil. When seeds are planted in soil containing them the germs become parasites and attack the young roots, and if the seedling is not killed before it emerges, the parasite makes another attack just at the soil-level, and the seedling topples over. The easiest, safest, and most economical treatment for eliminating these diseases is to sterilize the soil by the use of Ansul Dust. It will also control oat smut. The treatment is simple and inexpensive and increases yields 15 to 25 per cent. 1-lb. can 75 cts., postpaid 85 cts.; 5-lb. can \$2, postpaid \$2.15; 25-lb. drum \$5.50.



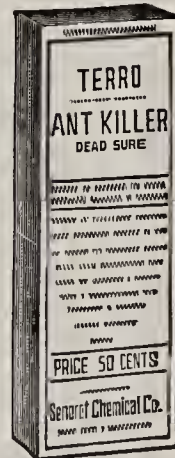
Terro Ant Killer

Will drive ants in 24 hours from pantries, refrigerators, plants, flowers or any other place infested with them. Terro is guaranteed to do the work or money back. Bottle 50 cts., postpaid 60 cts.

Trowbridge's Grafting-wax

This brand of Grafting-wax is the oldest brand on the market, and is of the most even consistency and elasticity of any. It is used by softening in warm water, or by the warmth of the hand. It can then be drawn out as thin as paper and spread on the cut and around the graft.

½-lb. pkg. \$0 30	Postpaid \$0 35
1-lb. pkg. 50	60





Nursery Volck

Effective, Safe and Easy to Use

Ornamental shade trees, shrubs, conifers, and greenhouse plants require a great deal of care to preserve their natural beauty and vigor. Spraying with contact insecticides is the only satisfactory means of controlling the sap-sucking insects such as scales, mites, aphids, mealy bugs, white flies, etc. Nursery Volck is especially adapted to nursery, greenhouse, and shade-tree spraying. It has all the effectiveness of the original Volck but is safer when applied to tender plants.

1/2-pt. can	\$0 35	Postpaid	\$0 45	1-gal. can.....	\$2 50	Postpaid	\$2 80
1-pt. can	55		70	5-gal. can.....	7 50		
1-qt. can	80		95				



Stanley's Crow Repellent Protects Your Corn

during the period when it is most easily damaged, by ridding your crop of crows and other corn-pulling birds, and animal pests, such as moles, gophers, woodchucks, squirrels, etc.

It saves loss of seed and labor of replanting. It positively will not clog any planter. It protects seed from rotting in the ground. It insures larger yield per acre. It is non-poisonous and will not injure the seed of any kind of corn. It will not kill birds or animals, but *will* keep them away and prevent destruction by them.

1-qt. can, enough for 4 bus. seed, \$1.75, postpaid \$1.95; 1-pt. can, enough for 2 bus. seed, \$1, postpaid \$1.15; 1/2-pt. can, enough for 1 bus. seed, 60 cts., postpaid 70 cts.

Sunoco Self Emulsifying Spray

The New York Agricultural Experiment Station reports "commercial control" of rosy aphid with Sunoco; the Connecticut Station finds Sunoco superior to lime-sulfur and nicotine. The experiences of growers everywhere have shown remarkable results.

For **ORNAMENTAL TREES**, tree experts agree that Sunoco Spray is the safest, most efficient material. Spruce gall aphid, euonymus, pine leaf, juniper, terrapin and similar scales easily controlled with Sunoco.

RUSTY EVERGREENS—spruce, arborvitae, etc., caused by red spider, may be prevented by using Sunoco Spray in June.

1-gal. can.....	\$1 25	Postpaid	\$1 55	15-gal. drum.....	\$8 25
5-gal. can.....	5 00			30-gal. drum.....	13 80
				50-gal. drum.....	19 00

Dan-D-Lion Killer Kemical

KILLER KEMICAL destroys all deep-rooted weeds without injury to the soil. Kills Dandelions, Thistles, Plantain, Buckhorn, and other common weeds. Is not poisonous or inflammable. Does not stain walks or clothing.

KILLER KANE insures easy and economical application. No stooping or back breaking. Place Kane on crown of dandelion or weed and press handle slightly. A small amount of kemical is released and does all the work.

PRICES

KILLER KITS (Kane and 1/2 gal. Kemical)\$1 95

KILLER KEMICAL

1-qt. can.....	\$0 75	1 gal.....	\$2 00
1/2 gal.....	1 25	5 gals.....	7 95
Special prices for larger quantities			
KILLER KANE	\$1 00		



Acme Spray Soap

A fish-oil Soap effective in destroying many sucking insects and lice on plants, trees, ferns, etc.

One pound makes about 10 gallons of solution.

1-lb. pkg.....	\$0 35	Postpaid	\$0 45
5-lb. pkg.....	1 40		1 55



Wilson's O. K. Plant Spray

A powerful, yet safe and efficient insecticide for general outside or greenhouse use. Positive control for most insects commonly found attacking flowering plants, shrubs, and ornamentals.

1 qt.....	\$1 00	5 gals.....	\$12 00
1 gal.....	3 00		

CYANO GAS

CYANO GAS A. Dust. For the certain extermination of moles, ground hogs, rats, mice, ants, fleas, wasps, and various other pests.

1/2-lb. tin.....	\$0 45	25-lb. tin.....	\$10 00
1-lb. tin.....	75	100-lb. drum.....	30 00
5-lb. tin.....	3 00		

CYANO GAS G. Fumigant. Fine for greenhouse and mushroom-house fumigation, wire-worm control, and all general fumigation work. In the greenhouse, 1/4 ounce per 1,000 cubic feet will control aphids, white fly, soft scale, thrips, and other greenhouse pests. Very efficient and economical.

5-lb. tin.....	\$3 00	100-lb. drum.....	\$30 00
25-lb. tin.....	10 00	Greenhouse booklet on request.	

Paradow

Pure Para-dichloro-benzene for peach-tree borers. When placed around the base of a peach tree, will generate a gas that will kill the borers in that tree. Use about 1 ounce per tree. Full directions on container. 1-lb. pkg. 50 cts., 5-lb. pkg. \$2, 25 lbs. \$7.25.

A Safe, Sure, Non-Arsenical Insecticide

Thousands of practical farmers endorse Dutox as an effective control for beetles and leaf-eating insects on vegetables, fruit, etc. They know by experience that **D u t o x** means crop protection. It does not injure plants nor impair fertility of the soil. Used as a dust, it is applied either alone or diluted with inert ingredients, or it may be applied as a spray.

1-lb. bag.....	\$0 35
6-lb. bag.....	1 50
Case, six 6-lb. bags.....	7 20



Sherwin-Williams Beetle-Dust

Beetle-Dust is an extremely fine powdered insecticide and contains an arsenical poison and sodium fluosilicate. It controls the Mexican bean beetle and other chewing insects.

1-lb. carton.....	\$0 25	24-lb. carton in 4-lb. bags.....	\$2 70
4-lb. bag.....	50		

Powdered Hellebore

For the destruction of slugs, worms, caterpillars, etc. Less poisonous than paris green or arsenate of lead and safer to use when fruits and vegetables are nearly ripe. Apply just as it comes from package.

1/2-lb. box.....	\$0 30	1-lb. box.....	\$0 50
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Paris Green

Effective for the control of the potato bug, grasshoppers, army worms, and cutworms. Contains about 55 per cent of arsenious oxide. May be used as a wet spray or a dust.

1/4-lb. carton.....	\$0 20	5-lb. carton.....	\$2 75
1-lb. carton.....	65		

Mag-o-tite

Effective in the control of root maggot on cabbage, cauliflower, kale, brussels sprouts, broccoli, onions, radishes, turnips, and rutabagas. Sprinkle Mag-o-tite freely in and over the drill or seed-bed when seeding, and if setting out cabbage and cauliflower plants, use it freely alongside the plant and on the surface of the ground. 1-lb. tin 25 cts., 5-lb. tin 90 cts., 25-lb. steel container \$2.75, 50-lb. steel container \$5.

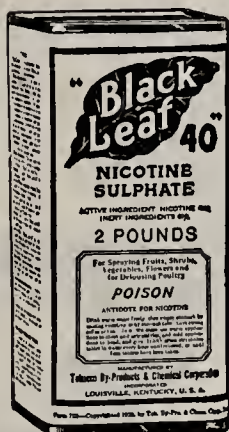
Black Leaf 40

40% Nicotine

Kills
Aphis

Black Leaf 40 is highly recommended by experiment stations and by spraying experts throughout the United States and the Dominion of Canada.

The standard contact insecticide for spraying vegetables, fruits, flowers, and plants to destroy aphids, thrips, leaf-hoppers, and similar "sucking" insects. Also effective for dipping purposes. Full directions with every package.



1-oz. bottle...	\$0 35	2-lb. can...	\$3 25
5-oz. can.....	1 00	5-lb. can...	5 85
1-lb. can.....	2 25	10-lb. can..	9 85

"NICO-FUME"

PRODUCTS
Liquid—Paper—Powder
FOR GREENHOUSES

Nico-Fume Liquid

A highly refined solution of free nicotine, guaranteed to contain fully 40 per cent of nicotine. Extensively used by leading florists for spraying or vaporizing in greenhouses to destroy aphids, thrips, etc. The labels contain complete directions. 1-lb. tin \$2.25, 4-lb. tin \$5.75, 8-lb. tin \$10.

Nico-Fume Tobacco Paper

Consists of sheets of paper impregnated with high-strength nicotine, folded and punched, ready to hang up and burn. Guaranteed to contain not less than 20 per cent of nicotine, its original nicotine content (when manufactured) being much higher. 24 sheets \$1.25, 144 sheets \$4.50, 288 sheets \$8.

Nico-Fume Tobacco Powder

Tobacco Powder impregnated with a high-strength nicotine solution. Effective for fumigating in greenhouses to destroy aphids, thrips, etc. The directions and illustrations are set forth on the labels. Lb. \$1, 5 lbs. \$3.35, 10 lbs. \$5.85.

Tobacco Dust

A specially ground Tobacco Dust, guaranteed to contain not less than 1/2 of 1 per cent nicotine. It is particularly useful in vegetable- and flower-gardens, in greenhouses and orchards, wherever a dusting powder is desired to destroy plant-lice and thrips. Owing to its extreme fineness it readily floats in the air, enveloping the entire shrub or tree in a dense cloud. 2-lb. bag 25 cts., postpaid 35 cts.; 10-lb. pkg. 75 cts., postpaid 95 cts.; 100-lb. sack \$3.25, 500 lbs. \$15.75.

Tobacco Stems

Bale (about 250 lbs.) \$2.75, 3 bales \$7.80, 10 bales \$24.

NEW EVER GREEN SPRAY

Kills Ants and Garden Insects

In its new form, Ever Green is more effective than ever. New Ever Green contains enough soap to give it maximum spread, condensed and combined by an exclusive new method which preserves the full power of its poison indefinitely.

New Ever Green kills plant-lice (aphids), leaf-rollers and hoppers, rose- and aster-beetles, rose-slugs, and many other hardy insects, both chewers and suckers. Its deadly pyrethrin content knocks them cold. Equally effective against cucumber and melon beetles, cabbage-worms and cutworms.

Safe to Use—Non-poisonous to humans, live-stock, birds, and pets. Deadly only to garden pests. Can't poison the grass or soil.

Easy and Pleasant to Use. Just mix with water and spray it on. Sprayer can't clog as Ever Green remains in solution. No unpleasant odor.

		Postpaid
1-oz. bottle.....	\$0 35	\$0 40
6-oz. can.....	1 00	1 10
16-oz. can.....	2 00	2 15
1-gal. can.....	12 00	12 30
5-gal. can.....	50 00	

Hammond's Grape and Rose Dust

Black-spot on roses, powdery mildew on grapes and flowers, blights, leaf-eating insects—all vanish after the use of Hammond's Grape and Rose Dust. A combined fungicide and insecticide used by professional growers for over half a century. 1-lb. can 35 cts., postpaid 45 cts.; 5-lb. can \$1, postpaid \$1.15.



Pomo-Green

With Nicotine
A Leaf-green ALL-IN-ONE
Dust or Spray

Dusting with "leaf-green" Pomo-Green is the protective method used by experts! Pomo-Green prevents and controls black-spot, mildew, chewing insects and sucking insects (aphids) on flowering plants, shrubs, and roses quickly and effectively.

Also controls many other fungous diseases of flowering plants and shrubs.

Protect new growth by dusting or spraying with Pomo-Green once each week throughout the growing season. 1-lb. can 75 cts., 5-lb. can \$3.

Dogzoff

Its use discourages dogs from the habits that are so destructive to evergreens, and from frequenting any place where they are undesirable and not wanted. Use it as a spray. Not harmful to dogs. Bottle 60 cts., postpaid 70 cts.

ANTROL

KILLS ANTS IN THE NEST

This scientific method is safe, sure, permanent

Antrol is easy to use, economical, and safe around children and pets. It consists of small glass containers from which the worker ants carry special Antrol Syrup to their nests for food. The whole ant family is quickly killed at the source—the only way to get permanent freedom from these pests. Controls both sweet- and grease-eating ants.

Antrol containers are practically unbreakable glass, with rustproof, waterproof aluminum lids. May be refilled and used year after year. Adapted to any size home or garden. Guaranteed.

REGULAR SET

Consists of 4 patented glass containers with rustproof aluminum lids, and one 4-oz. bottle of Antrol Syrup. Especially recommended for homes, estates, gardens, etc. May be used inside or out. A permanent system. 75 cts. per Set.

READY-FILLED SET

Consists of 4 special glass "feeders" containing regular Antrol Syrup. You simply remove inside liner from the caps, replace cap, and place feeders around infested area or in the house. Ideal for use in apartments, homes, camps, yards, etc. 50 cts. per Set.

ANTROL SYRUP. 4-oz. bottle 35 cts., pt. 85 cts., gal. \$3.50.

SNAROL

KILLS GARDEN PESTS

Cutworms, sowbugs, grasshoppers, slugs, snails, earwigs, etc., are quickly exterminated.

Snarol is a ready-prepared meal that you simply broadcast on the ground, under the vegetation. Pests eat it at night and are quickly destroyed.

Snarol will not deteriorate from rain or sprinkling. Thus it lasts longer and is more economical. It is non-injurious to vegetation when used according to simple directions. 1 1/2-lb. pkg. 35 cts., 4-lb. pkg. 85 cts., 15-lb. bag \$3, 50-lb. bag \$8.

Tree Tanglefoot

A sticky material for banding trunks of trees, vineyards, etc., to protect them against the ravages of climbing insect pests.

No mixing is required. It comes ready for use and is easily and quickly applied with a wooden paddle. One pound makes 15 to 20 lineal feet of band.

6 ozs. 25 cts., postpaid 35 cts.; 1 lb. 60 cts., postpaid 70 cts.; 5 lbs. \$2.75, postpaid \$2.90; 10 lbs. \$5.25, postpaid \$5.50; 25 lbs. \$11, postpaid \$11.40.



WIARD PLOWS

The Wiard Plows have been continuously manufactured since 1804. Their history has been a record of constant improvement in efficiency, strength and durability, and they are today recognized as leaders in this class of Agricultural Implements.

The real quality of an implement is shown, not by what its makers claim for it, but by the results which it gives in the hands of the average user. Therefore, go to the farmer, whom you consider fair and without prejudice, and see what he says about Wiard Implements; in other words, "Ask the man who owns one." Space will permit of our showing but a few of the leading styles adapted to Pennsylvania soils, and customers who do not find the Plow they are looking for described herein are requested to ask for complete catalogue, which will be mailed free.

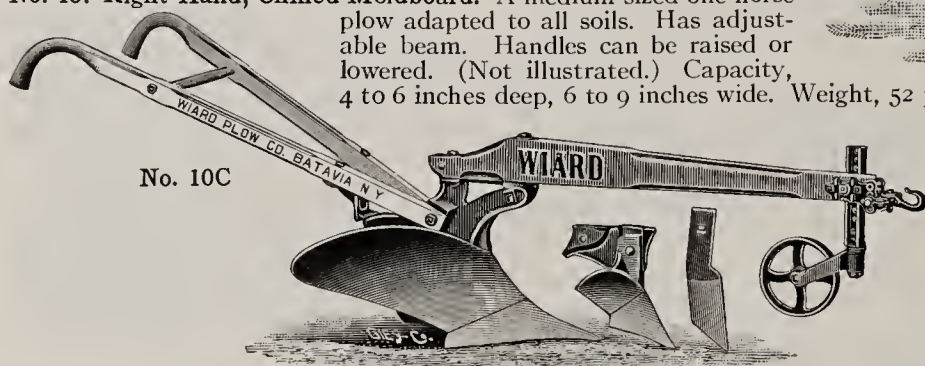
WIARD ONE-HORSE PLOWS

No. 62. Right-Hand, Chilled Moldboard

This is the smallest Wood Beam Wiard Plow. It has a fine turning moldboard and an adjustable beam, allowing the horse to walk in the furrow or on the land; is light, strong, and the construction is perfect.

Capacity, 3 to 5 inches deep, 6 to 8 inches wide. Weight, 40 pounds. Plain, \$8; wheel, \$1.75 extra.

No. 13. Right-Hand, Chilled Moldboard. A medium-sized one-horse plow adapted to all soils. Has adjustable beam. Handles can be raised or lowered. (Not illustrated.) Capacity, 4 to 6 inches deep, 6 to 9 inches wide. Weight, 52 pounds. Plain, \$9; wheel, \$1.75 extra.



No. 10C. Right-Hand, Chilled Moldboard

This is the acme of perfection in one-horse Plows. Adjustable beam so that the horse can walk in the furrow or on the land.

Capacity, 4 to 7 inches deep, 6 to 11 inches wide. Weight, 77 pounds. Plain, \$12.75; wheel, \$2 extra; jointer or colter, \$3.50 extra.

WIARD TWO-HORSE PLOWS

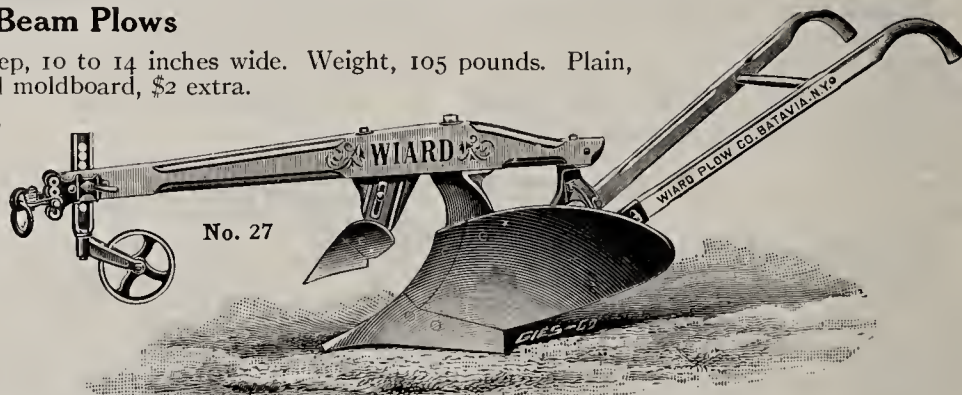
These Plows are constructed with special reference to obtaining the greatest strength with least weight. They have been thoroughly tested by hundreds of farmers in all kinds and conditions of soil and are unexcelled for general-purpose work.

Wood Beam Plows

No. 27. Left-Hand. Capacity, 6 to 8 inches deep, 10 to 14 inches wide. Weight, 105 pounds. Plain, \$20; wheel, \$2 extra; jointer, \$4.75 extra; steel moldboard, \$2 extra.

No. 28. Left-Hand. Capacity, 7 to 9 inches deep, 12 to 16 inches wide. Weight, 112 pounds. Add \$1 to prices of No. 27.

No. 26½. Right-Hand. Capacity, 5 to 8 inches deep, 10 to 14 inches wide. Weight, 115 pounds. Plain, \$20; wheel, \$2 extra; jointer, \$4.75 extra; steel moldboard, \$2 extra.



Steel Beam Plows

The latest "New Pattern" series of combination, grooved steel beam, general purpose Plows.

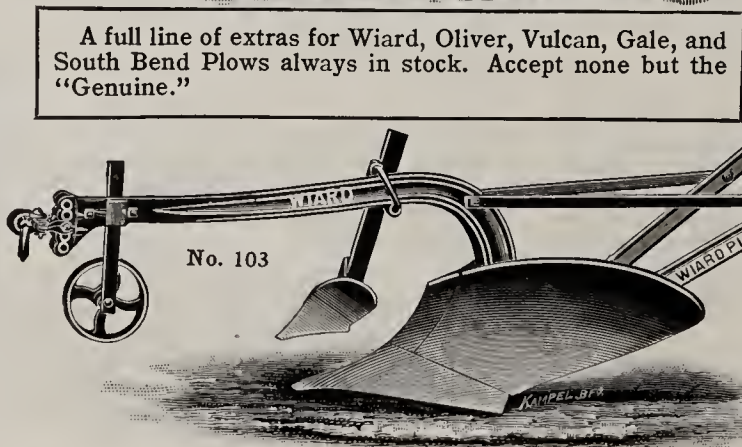
No. 103. Left-Hand. Two-horse. Capacity, 4 to 7 inches deep, 9 to 13 inches wide. Weight, 120 pounds. Plain, \$17.75; wheel, \$2 extra; jointer, \$4.75 extra; steel moldboard, \$2 extra.

A two-horse Plow of medium capacity, and suited to either sod or stubble plowing.

No. 104. Left-Hand. Two- or three-horse. Capacity, 5 to 8 inches deep, 11 to 15 inches wide. Weight, 130 pounds. Add \$1.75 to prices of No. 103.

No. 43. Right-Hand. Same capacity, size, and price as No. 103 Left-Hand.

No. 44. Right-Hand. Same capacity, size, and price as No. 104 Left-Hand.

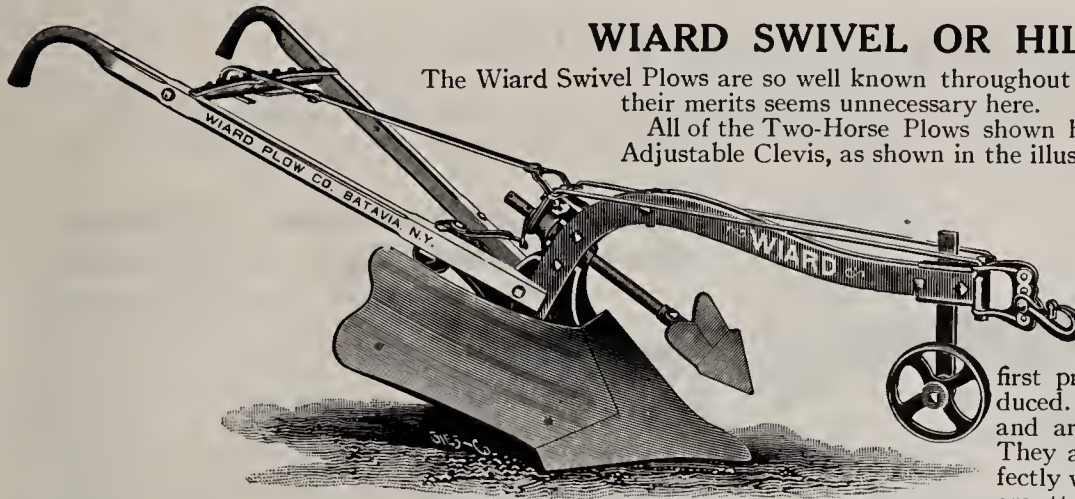


A full line of extras for Wiard, Oliver, Vulcan, Gale, and South Bend Plows always in stock. Accept none but the "Genuine."

WIARD SWIVEL OR HILLSIDE PLOWS

The Wiard Swivel Plows are so well known throughout Pennsylvania that a detailed account of their merits seems unnecessary here.

All of the Two-Horse Plows shown here are furnished with either Common or Adjustable Clevis, as shown in the illustration.



No. 120. Capacity, 5 to 8 inches deep, 10 to 13 inches wide. Weight 118 pounds. Plain, \$22.50; adjustable clevis, \$1.50 extra; wheel, \$2 extra; jointer, \$4.75 extra; colter, \$4 extra; steel moldboard, \$2 extra.

WIARD WOOD BEAM SWIVEL PLOWS

No. 21. One-Horse Hillside Plow, Chilled Moldboard

By an ingenious but simple clevis attached to these Plows they can be used with horse walking in the furrow, a great convenience for garden and vineyard work.

Capacity, 4 to 7 inches deep, 6 to 10 inches wide. Weight 77 pounds. Plain, \$13.50; wheel, \$1.75 extra; steel moldboard, \$1.50 extra.



No. 140. Two-Horse Swivel Plow The Best of all Wood-Beam Swivel Plows

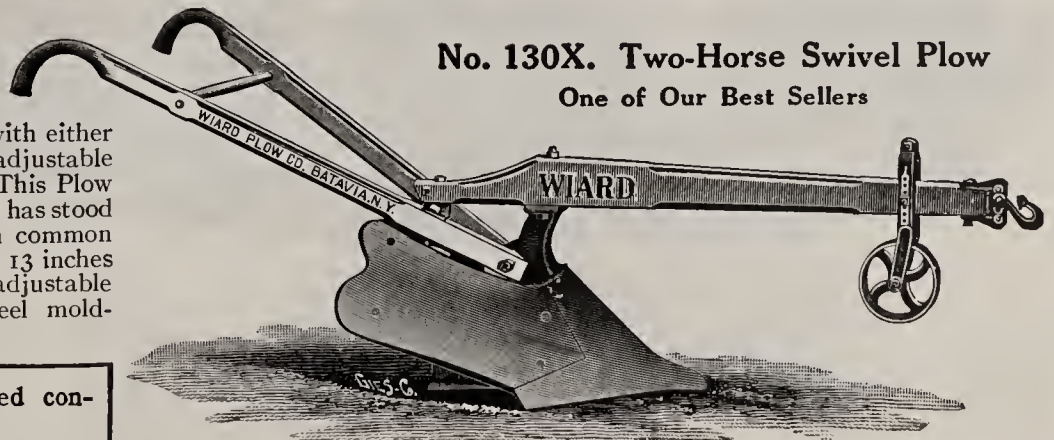
The cut shows plow with adjustable clevis and jointer. This is the most superb of all Wood-Beam Swivel Plows. It has a strong, high standard and long shoe, making it one of the most steady running Plows in our list. Capacity, 5 to 8 inches deep, 10 to 13 inches wide. Weight 115 pounds. Plain \$19, adjustable clevis, \$1.50 extra; wheel, \$2 extra; jointer, \$4.75 extra; colter, \$4 extra; steel moldboard, \$2 extra.

The Wiard leads
in Swivel Plows

This plow has about the same capacity as the No. 140, the wearing parts being the same except the shoe. The outlines are somewhat different, as shown by the cut, and the Plow is lighter. It can be fitted with either cast-iron or soft center-steel moldboard, adjustable clevis and adjustable automatic colter. This Plow has been on the market for many years and has stood the test of time. The cut shows Plow with common clevis. Capacity, 5 to 8 inches deep, 10 to 13 inches wide. Weight 104 pounds. Plain, \$18; adjustable clevis, \$1.50 extra; wheel, \$2 extra; steel moldboard, \$2 extra.

Wiard Plows have been manufactured continuously since 1804

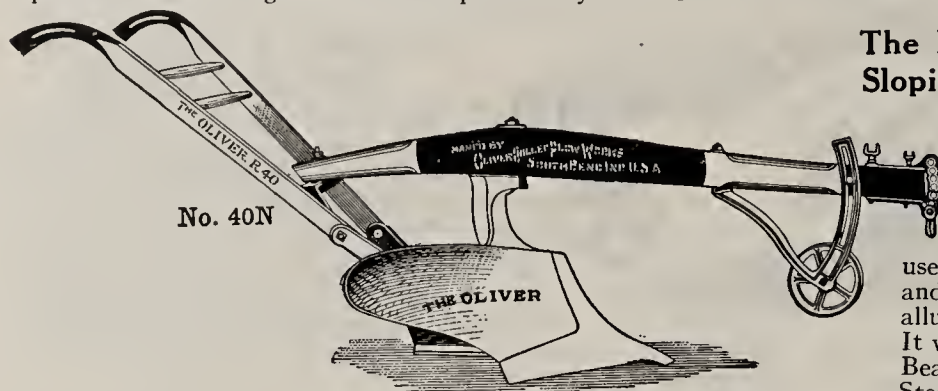
No. 130X. Two-Horse Swivel Plow One of Our Best Sellers



OLIVER CHILLED PLOWS

The Oliver Chilled Plows need no introduction to the Pennsylvania farmer. So great is the popularity of these Plows that unscrupulous parties are seeking to trade upon their good name by making and offering for sale imitation Plows and parts as genuine.

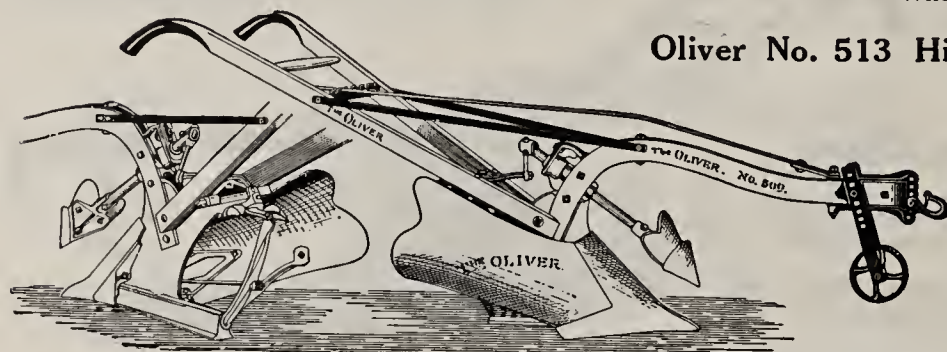
We have space to show but a few of the leading favorites among Pennsylvania farmers, but will send a complete catalogue on request. A full line of genuine Oliver repairs always in stock.



The No. 40N Wood-Beam, Full Chilled, Sloping Landside, Right- and Left-Hand

This is the veteran Plow of the Oliver line and for many years it has been familiar to a majority of the farmers in America.

The No. 40N is a two- or three-horse Plow, first-class in all respects and immensely popular, its sales exceeding those of any other Plow in use. Always reliable, its great capacity, steady running and turning qualities, make it valuable in sandy or alluvial lands, and on farms containing a variety of soils. It will turn a furrow 9 x 16 inches. Weight of Wood-Beam, 138 lbs., Steel-Beam 157 lbs. Price, Wood- or Steel-Beam, Plain, \$18.50. For Wood-Beam, Wheel extra \$2.50; Jointer extra \$3.85. For Steel-Beam, Wheel extra \$2.20; Jointer extra \$4.95.



Oliver No. 513 Hillside, Steel-Beam Plow

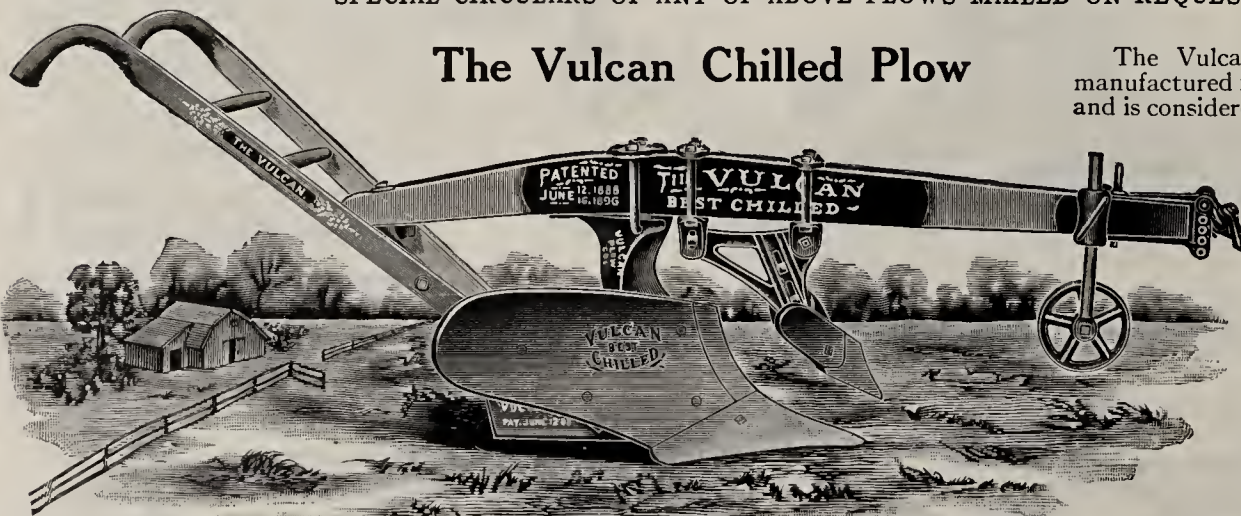
The illustration shows a new and very neat pattern of Hillside Plow, which possesses so many valuable features as to make it a leader of its class. Light in weight, light in draft and the shape and turning qualities are A-1. Bottoms are long, insuring steadiness and ease of handling. Capacity, 8 x 15 inches. Weight, 144 lbs. Price, Plain, \$22.50; Wheel, extra \$1.65; Jointer, extra \$3.30.

Prices of other Oliver Chilled Plows

	Beam	Hand	Capacity	Weight	Plain	Wheel Extra	Jointer Extra
No. BN	Wood	Right	5 x 10 in.	71 lbs.	\$9 75	\$1 65	\$3 60
No. 10N	Wood	Right	5½ x 11 in.	74 lbs.	12 00	1 65	3 60
No. E1N	Wood	Right or Left	7 x 14 in.	132 lbs.	18 50	2 50	3 85
No. 83N	Steel	Right or Left	7 x 14 in.	146 lbs.	18 50	2 20	4 70
No. 84	Steel	Right or Left	8 x 16 in.	158 lbs.	21 00	2 20	4 70
No. 153	Trussed Steel	Hillside	5 x 8 in.	70 lbs.	12 75	1 65	
No. 512	Trussed Steel	Hillside	8 x 13 in.	139 lbs.	21 50	1 65	3 30

SPECIAL CIRCULARS OF ANY OF ABOVE PLOWS MAILED ON REQUEST

The Vulcan Chilled Plow



The Vulcan Chilled Plow has been manufactured for more than a half century and is considered by many users as the best Chilled Plow manufactured. Superior construction of the best material by competent mechanics is responsible for its strength, light draft and steady running. They are equipped with ribbed moldboards, which act as strengthening braces, and corrugated points, which it is claimed will outwear ordinary points and also hold a cutting edge a greater length of time.

	Beam	Hand	Capacity	Weight	Plain	Wheel Extra	Jointer Extra
No. 10	Wood	Right	6 x 11 in.	83 lbs.	\$13 50	\$1 60	
No. 13	Wood	Right or Left	8 x 13 in.	127 lbs.	16 50	1 60	\$4 50
No. 14	Wood	Right or Left	8 x 14 in.	135 lbs.	18 00	1 60	4 50
No. 13	Steel	Right or Left	8 x 13 in.	145 lbs.	16 50	1 60	5 00
No. 14	Steel	Right or Left	8 x 14 in.	155 lbs.	17 50	1 60	5 00
No. 10	Steel	Hillside	7 x 10 in.	112 lbs.	14 50	1 60	5 50
No. 12	Steel	Hillside	8 x 12 in.	143 lbs.	19 50	1 60	5 50

Improved Fordson Tractor

A STURDY, RELIABLE, ECONOMICAL, AND POWERFUL TRACTOR

The Improved Fordson Agricultural Tractor of today gives the farmer a Tractor with ample power to haul two 14-inch bottom plows, and delivers 30 H. P. at the belt, with the motor running at 1,100 R. P. M.

The New Fordson is easily started, being equipped with the latest type magneto with impulse starter.

An improved lubrication system with a larger crank-case and oil-filter, new water-cooling system with pump, and powerful brake with ratchet for holding Tractor.

The front of the Tractor is mounted on a coil spring which acts as a shock-absorber. The front wheels are of the one-piece cast type. Heavy fenders and platform are standard equipment.

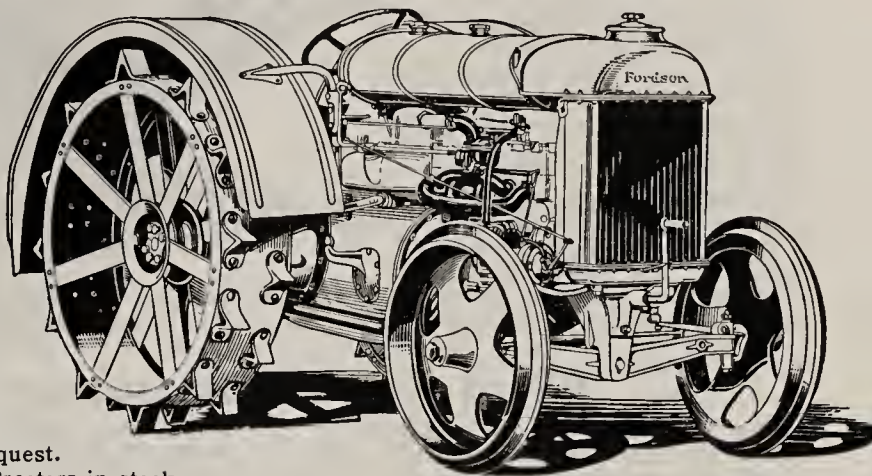
Rear wheels are equipped with removable cleats, allowing for spade-type lugs if preferred.

The Fordson is a powerful, compact, sturdily built Tractor, with the framework of single-unit construction, and all working mechanism enclosed.

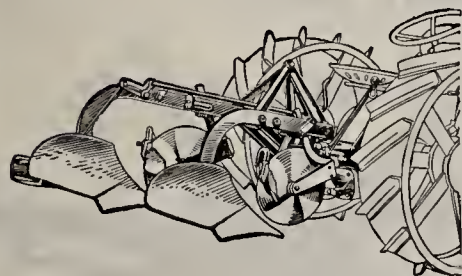
The latest centrifugal type of governor, and gear-shift belt-pulley is now used. This pulley can also be used on the previous model. Weight of Tractor, approximately 3,126 pounds.

Descriptive Circular and prices on request.

We carry repair parts for all models Fordson Tractors in stock.



The New Ferguson Plow *Adaptable to all plowing conditions*



The Ferguson, when attached to the Fordson, becomes part of the Tractor—a single integral unit. Because of this unit principle, and because of the revolutionary line of draft it secures penetration by pull instead of weight.

The Ferguson handles easily in small and irregularly shaped fields, and plows corners and tight places as well as the wide-open spaces. Quickly attached or detached, and is easily raised or lowered, with one hand, from the driver's seat. The Ferguson Plow can be used only with the Fordson Tractor. Made in three sizes:

16-inch. Single Bottom with combination rolling colters and jointers. Weight 265 lbs. . . \$80 00
12-inch Two Bottom with combination rolling colters and jointers. Weight 360 lbs. . . . 87 50
14-inch Two Bottom with combination rolling colters and jointers. Weight 360 lbs. . . 102 50

DESCRIPTIVE CIRCULAR ON REQUEST

Wiard No. 32 Tractor Plow

STRONG, DURABLE, LIGHT DRAFT, ADJUSTABLE WIDTH OF CUT
TWO BOTTOM OR SINGLE BOTTOM. MADE BY THE "OLDEST PLOW MAKERS IN AMERICA"

The Wiard No. 32 Two Bottom Tractor Plow is shown at right with the regular equipment of combination rolling colters and jointers, safety hitch, regular landsides, chilled moldboards and points. A landing lever attachment can be furnished to give more or less lead to the Plow on uneven ground, assuring that full furrow capacity is gained by each bottom.

The entire Plow is constructed with an idea to simplicity and the number of parts have been reduced to a minimum.

Ease of draft, smoothness of furrow and durability of Plow are unexcelled. There is a good easy turn to the moldboard but it puts the furrow over, covering all vegetation, manure, or trash of any kind. It has a capacity of from 5 to 8 inches deep.

The main frame of the Plow is so constructed as to give an amply high lift to the bottoms, getting them out of the way of ordinary obstructions. This frame is adjustable for 24 or 28-inch plowing by the removal of six bolts.

Operating levers are easily reached from the tractor seat. The depth and level of Plows may be instantly changed without removing both hands from steering wheel.

Plows are lifted by tractive power of the land wheel. This lift has been thoroughly tried and approved.

PRICES

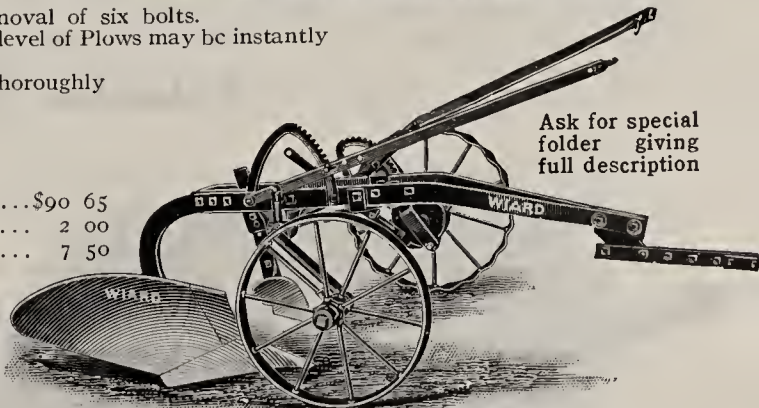
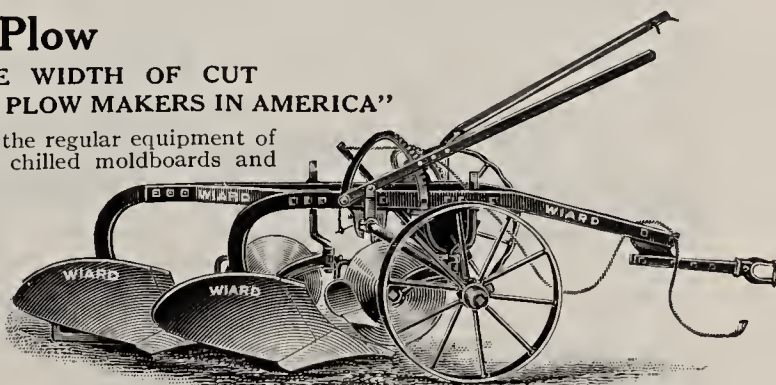
Two Bottom, 24 to 28-inch cut

With chilled bottoms, combination rolling colters and jointers, regular hitch...\$90 65
For steel moldboards instead of chilled, add..... 2 00
For jointers instead of combination rolling colters and jointers, deduct..... 7 50

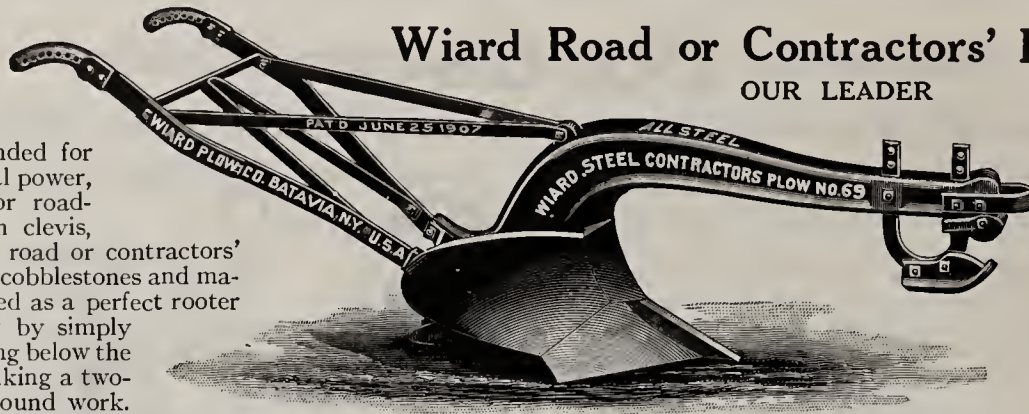
Single Bottom, 16 to 18-inch cut

The Single Bottom Plow is of the same rigid construction throughout as the Two Bottom Plow. It has lighter draft and will do more uniform work in hard ground and on hillside. Any light tractor will handle it at a faster plowing speed than a Two Bottom Plow, and it will do nearly as much work. For deep plowing it has no equal.

With chilled bottoms, combination rolling colter and jointer, regular hitch\$77 00
For steel moldboards instead of chilled, add 1 00
For jointers instead of combination rolling colters and jointers, deduct..... 3 75



Ask for special folder giving full description



This Plow is intended for use with either animal power, a traction engine, or road-roller. Weight, with clevis, 315 pounds. For all road or contractors' work—for tearing up cobblestones and macadam—it can be used as a perfect roter and pavement Plow by simply removing the steel wing below the moldboard—thus making a two-in-one Plow for all-round work. Ordinarily, the contractor has

one Plow for general purpose or furrow work and another Plow for roter work or tearing up old pavements. This No. 69 does the work of both and answers any and all purposes, means a less investment and keeping in stock extra parts for one Plow only.

Price, with shoe, and forged steel point, \$62

Wiard Road or Contractors' Plows Nos. 64 and 65

No. 64, with steel beam, is a light Plow intended for road-repair work. It has excellent turning qualities and will hang to the ground on a hard and difficult job. Weight, 160 pounds. Price, with shoe and forged steel point, \$38.

No. 65, with cast-iron beam, is a medium-weight Plow intended for general contracting work. Weight, 200 pounds. Price, with cast-iron point, \$30; with forged steel point, \$35. No. 65, with steel beam and forged steel point, \$48.50. (Shoe included at prices quoted.)

The Wiard Reversible or Two-Way Sulky Plow

This Sulky is adapted to all soils, leaves no ridges or dead furrows and does perfect work on either level land or side hill.

It is very simple, easy to handle and is lightly constructed, the material used being mostly steel and malleable iron, making it very strong and durable.

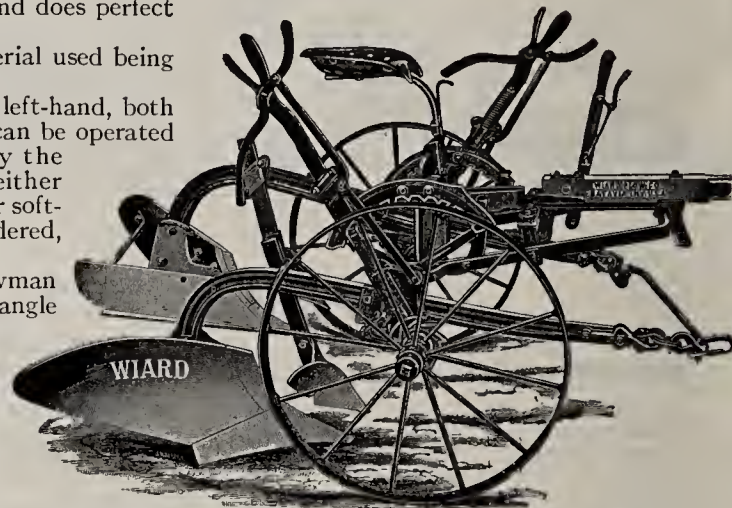
As shown in the illustration, there are two Plows, one right- and one left-hand, both operated by separate levers and having an automatic power lift which can be operated by the driver from the seat either by the use of a trip lever operated by the foot, or by a hand trip lever which can be operated by the driver either when riding or walking. The Plows have the highest grade chilled iron or soft-center steel moldboards, and either forged steel or cast-iron points as ordered, and can be fitted with jointer or plain colter, as desired.

The Pole Shifter is operated by a hand lever, which enables the plowman while riding or walking to shift the pole either to the right or left at any angle desired, to suit the team and get the proper width of furrow, either on flat land or side hill, without side draft.

The Automatic (Power Lift) Foot Trip operates as follows: The Plow is lifted from the furrow by the team while in motion, by pressure of the foot on the trip lever, until the Plow begins to lift and the lever moves forward, which will then release and lock itself in place. The lift can also be operated by hand by the driver, either from the seat when riding or when walking behind. It unlocks by pressure of the foot on the foot trip or by hand by pressure of the upper rear handle of dog, lowering the Plow.

The Sulky is perfectly balanced so that whether the operator is on the seat or following the Plow there is absolutely no weight on the horses' necks. The seat can be adjusted so as to allow it to be leveled when plowing on side hill, throwing the weight of the operator towards the upper wheel, giving comfort and ease to the driver.

The Double Sulky can be fitted with the following bottoms:



Nos. 43 right and 103 left. Cuts 4 to 7 in. deep, 9 to 13 in. wide. With chilled or steel molds. Nos. 44 right and 104 left. Cuts 5 to 8 in. deep, 11 to 15 in. wide. With chilled or steel molds. No. 400. Two- or three-horse. Weight, 550 lbs. Complete with chilled moldboards, jointers, or plain colters, cast-iron points. two- and three-horse hitch, \$105; fitted with steel moldboards, \$4 extra; fitted with forged steel points, \$8 extra. Price and circular of Single Sulky upon request.

Columbus Steel Drag Scraper



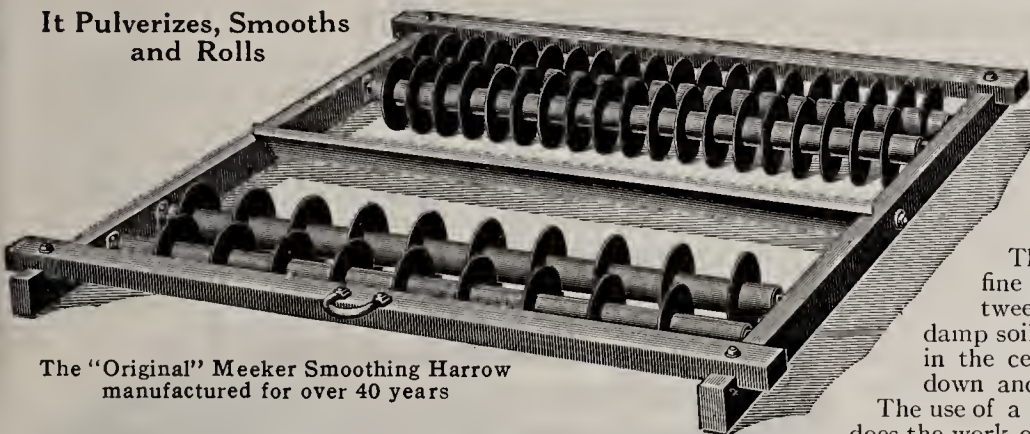
The most economical tool made for making and mending roads. The Columbus is the highest type of Drag Scraper made. The bowls are stamped from a single sheet of extra hard steel plate and are of seamless construction throughout. The round-top handles are a distinguishing feature. The bails are of steel and of improved pattern, with strong and perfectly working swivels.

No. 1. Approximate capacity 7 cubic feet. Size of bowl: length over all 32½ inches; width 33 inches; greatest depth, 10½ inches; weight, 105 pounds. With runners, \$9.25.

No. 2. Approximate capacity 5 cubic feet. Size of bowl: length over all 30½ inches; width 29½ inches; greatest depth 10½ inches; weight 95 pounds. With runners, \$9.

Meeker Smoothing Harrow

It Pulverizes, Smooths
and Rolls



The "Original" Meeker Smoothing Harrow
manufactured for over 40 years

**MAKES THE HEAVIEST SOIL
FINE AND SMOOTH**

The Meeker Smoothing Harrow is a perfect pulverizing and smoothing Harrow and land-roller combined.

As the illustration shows, it has four sets of rollers containing 46, 58 or 82 discs, depending upon the size, the discs being set so as to overlap or meet.

These discs grind up all lumps, leaving the soil fine and smooth. The discs of one roller work between those of the other. This prevents clogging in damp soil and makes the seed-bed very fine. The board in the center, set at an angle, can be adjusted up and down and serves as a leveler.

The use of a Meeker Harrow saves the work of raking, and does the work of a dozen men. As one experienced farmer re-

marks in telling how he prepared an onion bed, "once lengthwise and once crosswise will usually fit a field in better shape than many times over with any other tool." After the Meeker Harrow has gone over the land it looks as if a garden rake had been used.

Every farmer who has one or more acres of fine seed under cultivation needs a Harrow that eliminates hand-raking—one that makes the soil as fine as dust. No matter what kind of soil it is, the Meeker Harrow prepares it perfectly for fine seeding—a perfection that no other implement approaches.

PRICES

4-ft. 6-in. x 4-ft. Harrow, with 46 8-in. discs.	\$26 50	6-ft. 8-in. x 6-ft. Harrow, with 58 10-in. discs.	\$36 00
4-ft. 6-in. x 4-ft. Harrow, with 46 10-in. discs.	28 00	8-ft. x 6-ft. Harrow, with 82 8-in. discs.	40 00
6-ft. 8-in. x 6-ft. Harrow, with 58 8-in. discs.	29 00	8-ft. x 6-ft. Harrow, with 82 10-in. discs.	46 50

Also a very valuable implement for use on golf-courses.
ASK FOR SPECIAL CIRCULAR

"Acme" Coulter Harrow

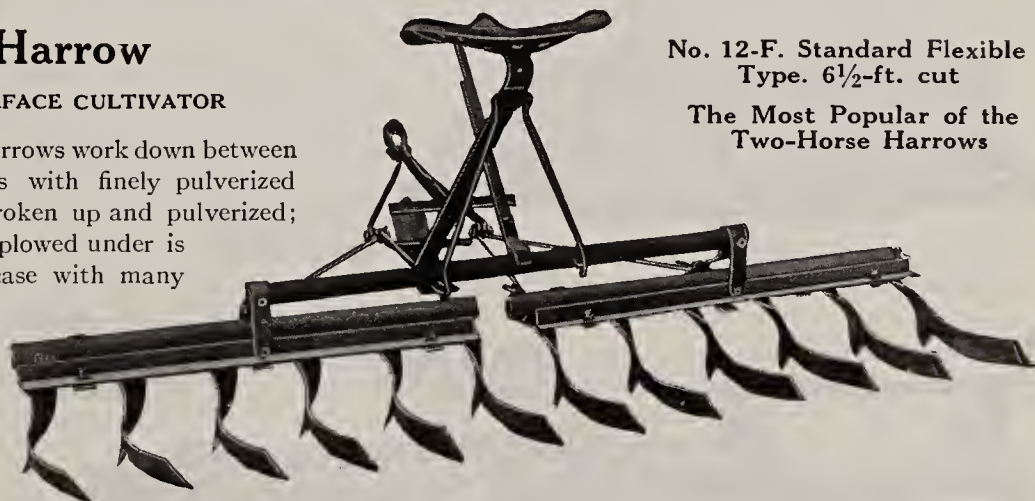
A PULVERIZING HARROW AND SURFACE CULTIVATOR

The coulters on "Acme" Pulverizing Harrows work down between the furrow slices, filling the air-spaces with finely pulverized soil—lumps and clods are thoroughly broken up and pulverized; trash or stubble that has been carefully plowed under is not dragged to the surface as is the case with many other types of Harrows but is left beneath the surface where it rapidly rots and adds humus to the soil. Just the Harrow to help destroy corn borers since the coulters work the plowed-under stubble, sod, etc., along with the borers, deep into the plowed depth and the corn borers will be destroyed by natural enemies before they can get back to the surface. The seed-bed prepared by the "Acme" Harrow is well compacted so that the seed will germinate rapidly; the surface is finely mulched so that the moisture is conserved.

Everything a Harrow ought to do, the "Acme" does. It cuts, crushes, levels, turns, smooths all in one operation, thus completely fitting the seed-bed for the seed. We have records of coulters in use twelve years before being replaced with new ones. The frame of the Harrow will last indefinitely, and after the coulters have been worn out new ones can be procured which will give you a Harrow just as good as when it originally left the factory.

In addition to flexible frame, Type F Harrows we offer Harrows of rigid-frame construction like Nos. 6, 8, 12 priced below.

We have sold the "Acme" Harrow for many years and customers who have worn out their second Harrow tell us that the "Acme" is an ideal Harrow for preparing the ground for the seed.



No. 12-F. Standard Flexible
Type. 6½-ft. cut

The Most Popular of the
Two-Horse Harrows

No.	Weight	Width	Description	Standard Type
*6	77 lbs.	3 ft.	1 horse, 1 section, 6 coulters	\$16 00
*8	94 lbs.	4 ft. 4 in.	1 horse, 1 section, 8 coulters	22 25
*12	112 lbs.	6 ft. 6 in.	2 horse, 1 section, 12 coulters	25 00
12-F	124 lbs.	6 ft. 6 in.	2 horse, 2 section, 12 coulters	29 00
16-F	151 lbs.	8 ft. 6 in.	2 horse, 2 section, 16 coulters	35 00

* Rigid Frame.

Prices upon other horse-drawn sizes, also Tractor sizes, quoted on request

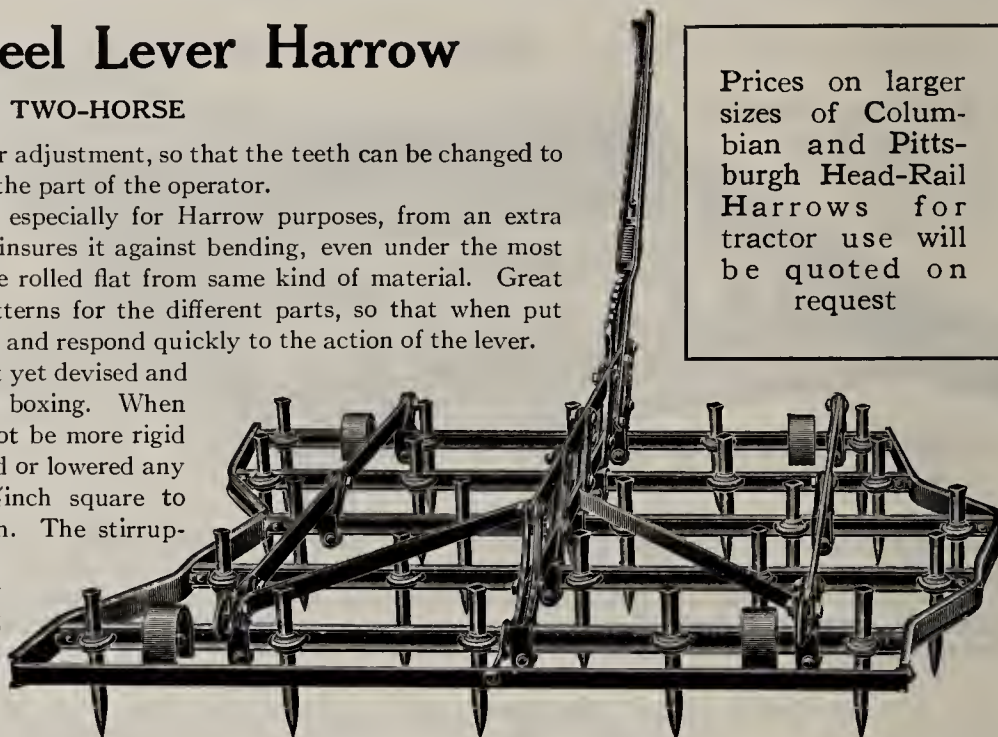
"Columbian" Steel Lever Harrow

ONE- AND TWO-HORSE

The Columbian Harrow is made with lever adjustment, so that the teeth can be changed to any slope quickly and with little exertion on the part of the operator.

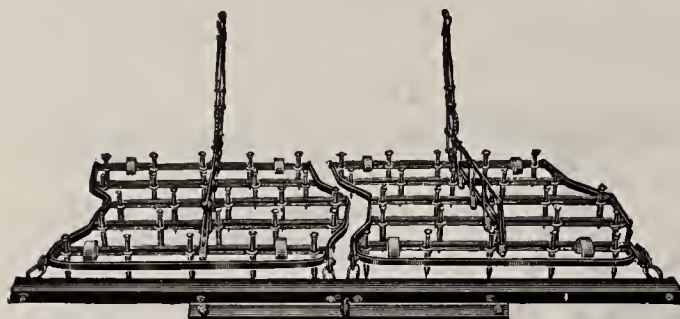
The main-bars are U-shaped, and made especially for Harrow purposes, from an extra quality of steel, very high in carbon, which insures it against bending, even under the most severe strain. The cross-bars and braces are rolled flat from same kind of material. Great pains have been taken in preparing the patterns for the different parts, so that when put together they will be free from "lost motion," and respond quickly to the action of the lever.

The tooth-clamp is without doubt the best yet devised and consists of stirrup bolt and back and front boxing. When fastened with this device, the teeth would not be more rigid if a part of the bar itself. Teeth can be raised or lowered any distance, and any size can be used, from $\frac{1}{2}$ inch square to $\frac{7}{8}$ inch square. Furnished with $\frac{9}{16}$ -inch teeth. The stirrup-bolt clamp is fixed to take the common stock teeth carried by all dealers. It is securely braced and nicely finished. One-horse, with 25 teeth, one section, weight 125 lbs., \$13.25; two-horse, with 50 teeth, two sections, weight 230 lbs., \$23.50; two-horse, with 60 teeth, two sections, weight 260 lbs., \$25.50.



Showing 25-tooth Section of Harrow

Prices on larger sizes of Columbian and Pittsburgh Head-Rail Harrows for tractor use will be quoted on request



very secure tooth-fastening. Furnished with $\frac{9}{16}$ -inch teeth. One-horse, with 25 teeth, one section, weight 118 lbs., \$11.75; two-horse, with 50 teeth, two sections, weight 215 lbs., \$20.50; two-horse, with 60 teeth, two sections, weight 230 lbs., \$22.50.

Pittsburgh Head-Rail Harrow

This Harrow is equipped with good lever device giving instant adjustment and desired slant to the teeth, thus adapting the Harrow to general purpose work or for finishing and smoothing operations. It will also answer the purpose of a weeder for the first cultivation of corn and potatoes. The heavy solid steel hitch-bar across the front braces the Harrow securely and is provided with malleable hitch-hooks. Harrow has flat runners, and the close-fitting back boxing in connections with "U" stirrup makes a



Clark
"CUTAWAY"

Flexible DOUBLE-ACTION TRACTOR HARROW

The Clark "Cutaway" Flexible Tractor Harrow gives all the flexibility that can be desired and at the same time retains many of the valuable and exclusive Clark "Cutaway" features. This is an unusually sturdy Harrow with its heavy angle-steel and channel-steel frame construction. All four gangs are angled by a powerful crank and screw control. The rear section can be quickly removed by taking out three bolts and the front section of the Harrow used alone if desired.

CUTOUT or SOLID DISCS

Furnished at the same price, or any combination of the two.

Farmers who want a genuine Clark "Cutaway" Disc Harrow but prefer the flexible type are very enthusiastic about this Harrow.

There is a special line of Heavy Service Tractor Harrows for extreme conditions and extra-heavy tractors. Folder sent on request.

Clark "Cutaway" Harrows have been continuously manufactured for more than 50 years. They are the best that can be produced both in design and construction.

SIZES AND SPECIFICATIONS

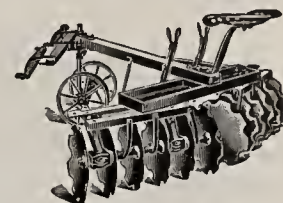
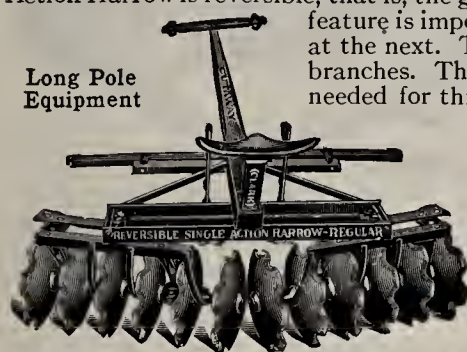
Size	No. of Discs	Diam. of Discs	Width of Cut	Weight	Price
A-6.	24	16 in.	6½ ft.	755 lbs...	\$107 00
A-7.	28	16 in.	7½ ft.	860 lbs...	115 00
X-5.	20	18 in.	5½ ft.	695 lbs...	105 00
X-6.	24	18 in.	6½ ft.	850 lbs...	116 00
X-7.	28	18 in.	7½ ft.	950 lbs...	127 00

Clark
CUTAWAY

Reversible Single-Action Harrow

Practical simplicity is the keynote in the design of the Clark "Cutaway" Single-Action Harrow. The head is built directly on top of the gangs, with the tongue, seat, braces, and levers all fastened to it, thereby making the discs carry the entire weight of the machine. This construction gives such perfect balance that there is practically no weight on the horses' necks, and makes the use of a tongue truck optional with the user. Without a tongue truck the hitch is placed back close to the machine and the draft is the very minimum. The "Cutaway" Single-Action Harrow is reversible, that is, the gangs can be swung end for end, so that the soil may be thrown either out or in. This reversible feature is important to the orchardist. He can throw the soil toward his trees at one cultivation and away at the next. The Single-Action Harrow Extension enables the orchardist to cultivate under low-spreading branches. The Extension Head Harrow can also be closed up for regular field-work, no extra parts being needed for this. Sizes up to 14 feet wide. Write for special circular.

Long Pole
Equipment



Tongue Truck Equipment

REGULAR HEAD

Size	Hitch	Width cut	Weight	Price
A-5. 10 16-in. discs, 2-horse, 5 ft.			290 lbs.	\$47 00
A-6. 12 16-in. discs, 3-horse, 6 ft.			340 lbs.	52 50
X-5. 10 18-in. discs, 2-horse, 5 ft.			345 lbs.	51 00
X-6. 12 18-in. discs, 3-horse, 6 ft.			425 lbs.	59 50

EXTENSION HEAD

Width cut	Weight	Price
7 ft.	315 lbs.	\$49 00
8 ft.	390 lbs.	56 50
7 ft.	380 lbs.	54 00
8 ft.	455 lbs.	63 50

If Tongue Truck is wanted instead of the Long Pole, add \$8 to above prices.
If both Tongue Truck and Long Pole are wanted, add \$10 to above prices.

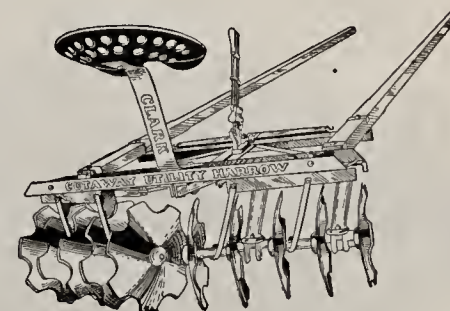
Clark
CUTAWAY

Utility One-Horse Harrow

Many farmers need a One-horse Disc Harrow and go without it simply because they cannot find a machine that is fit to use with one horse—most of them are too heavy. The Utility Harrow is one of the five special One-horse Clark "Cutaway" Disc Harrows built expressly to meet one-horse requirements.

The Utility Harrow is ideal for the nurseryman, market-gardener, florist, or general farmer; it is suitable for cultivating small fruit trees, for cultivating berries or for preparing seed-beds. While light and easy to handle, it is very strong and does a good job.

Frame is of angle steel; gangs are reversible; 10 14-inch cutlery steel, forged-edge discs (cutout or solid same price) cutting 4 feet wide. Weight 200 pounds. Price \$35.



Clark
CUTAWAY

Double-Action Disc Harrows

This machine is built with all four gangs attached to *one unit main frame* which holds the rear discs so they cut and pulverize the soil between the furrows cut by the front discs. All the soil over which the machine passes is thoroughly worked and the surface left level. This Clark "Cutaway" Double-Action Harrow constantly works at leveling the ground, cutting down the high places, filling in the hollows, leaving a seed-bed in both places.

The Clark "Cutaway" Double-Action Harrow is well known for its light draft. It is built very compact, so the distance from the hitch to the rear end of the machine is about one-half the length of the load in tandem or trailing-type Harrows. There is no tongue truck as there is absolutely no use for it. This further helps reduce draft and also saves expense.

The discs are the well-known Clark "Cutaway" forged-edge cutlery steel discs. Either cutout or solid discs will be furnished at the same price; cutout discs are supplied unless the other is specified. Bearings are the famous Clark hardwood oil-soaked bearings.

The jointed pole prevents neck weight and may be removed in one minute, making it possible to use the Harrow either as a tongueless or a tongue machine.

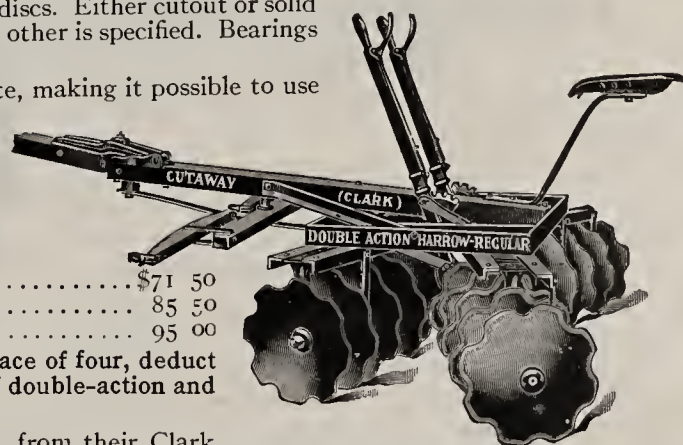
The levers are convenient to the driver's seat, which is placed at the rear where it should be. Each lever controls a set of front and rear gangs.

SIZES AND SPECIFICATIONS

Size	Hitch	Width cut	Weight
A-4. 16 16-in. discs, 2-horse, 4½ ft.			440 lbs.
A-5. 20 16-in. discs, 3-horse, 5½ ft.			555 lbs.
A-6. 24 16-in. discs, 4-horse, 6½ ft.			630 lbs.

If two-horse hitch is wanted in place of three, or three-horse hitch in place of four, deduct \$1 from the above prices. Descriptive catalogue and prices on other sizes of double-action and reversible single-action Harrows mailed on request.

Letters from farmers who have received twenty years' service, and more, from their Clark "Cutaway" Harrows testify to the long life and satisfactory results given by these good Harrows. These Harrows are well known for their light draft as well as for the amount and quality of work they do.



Iron City Pipe Bar Lever Harrow

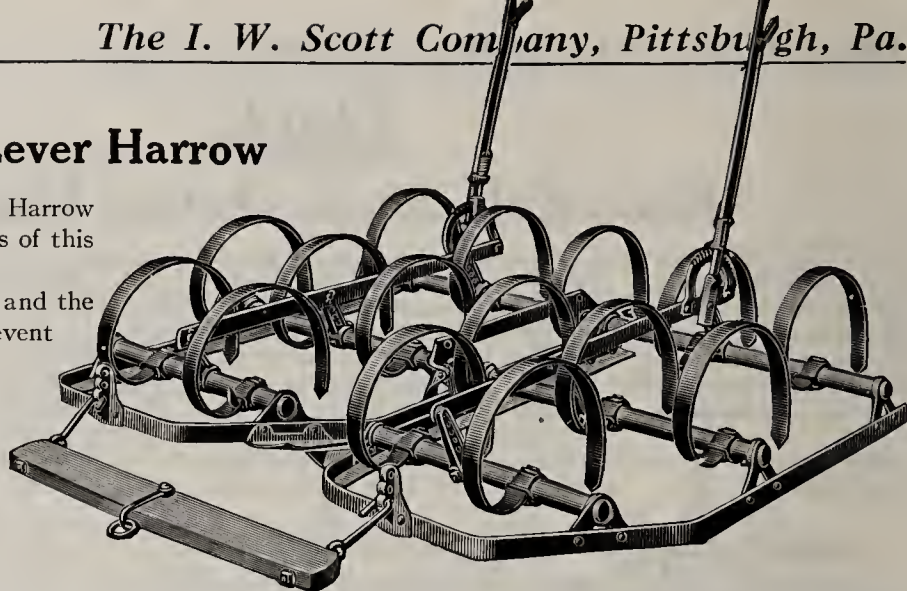
The Iron City Spring-Tooth Steel-Frame Lever Harrow shown here represents one of the most popular types of this class of Harrows.

The Iron City has angle steel frame, runner style, and the front of the Harrow is constructed with a view to prevent the gathering of trash.

Renewable steel shoes are bolted to the under side of all frame angles, and can be replaced at moderate expense.

The tooth bars are steel pipe, to which the teeth are bolted and held securely with the assistance of spanner clips.

All teeth are carefully tested before shipment and are guaranteed against defects. Two-section, with 15 teeth, weight 225 lbs., \$23.50; two-section, with 17 teeth, weight 240 lbs., \$25. Prices on three- or four-section Harrows will be quoted on request.



Pittsburgh Perry Wood-Frame Harrow

Steel Lined, Guarded, Protected Bolt Heads,
Perfect Tooth Seat, Adjustable Hitch

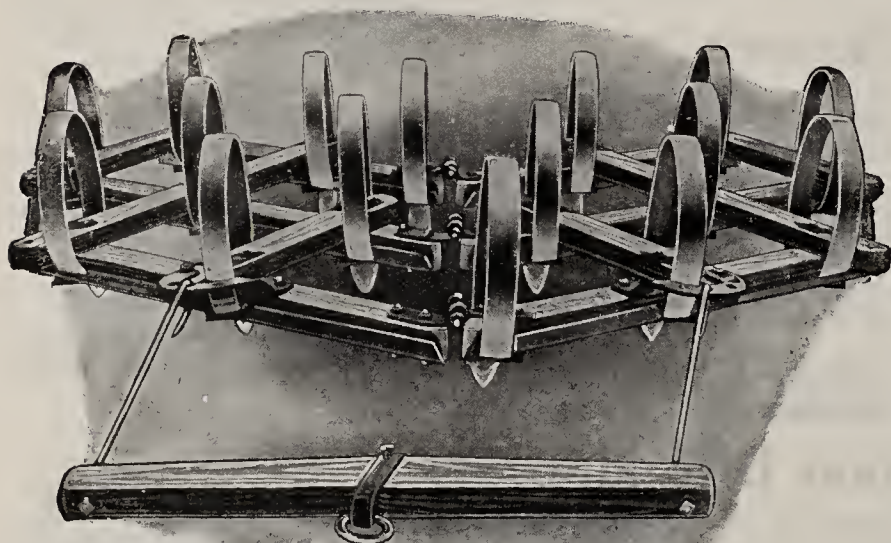
THE BEST OF THE
"WOOD FRAMES"

The best Wood-Frame Harrow on the market. Beams full 3 inches; linings $\frac{1}{8}$ -inch angle steel; bolts $\frac{3}{8}$ -inch; teeth are full length and weight, tempered in oil and fully warranted; our tooth fasteners are channel steel. Steel braces support and strengthen the outer end of the Harrow.

These Harrows are well made of best oak and hinged properly so that they will not buckle in the middle, but ride evenly, pulling all teeth in the ground at about an even depth.

Teeth are made from open-hearth, high-carbon spring steel, oil-tempered and tested.

Price, with 16 teeth, weight 191 lbs., \$19; with 18 teeth, weight 209 lbs., \$20.



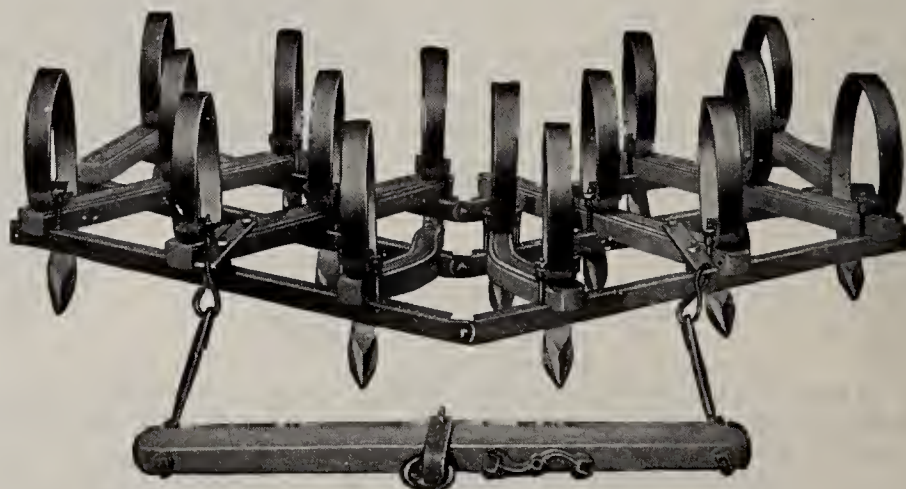
Pittsburgh Combination Harrow

The illustration tells the story—a strong, simple, and efficient Harrow.

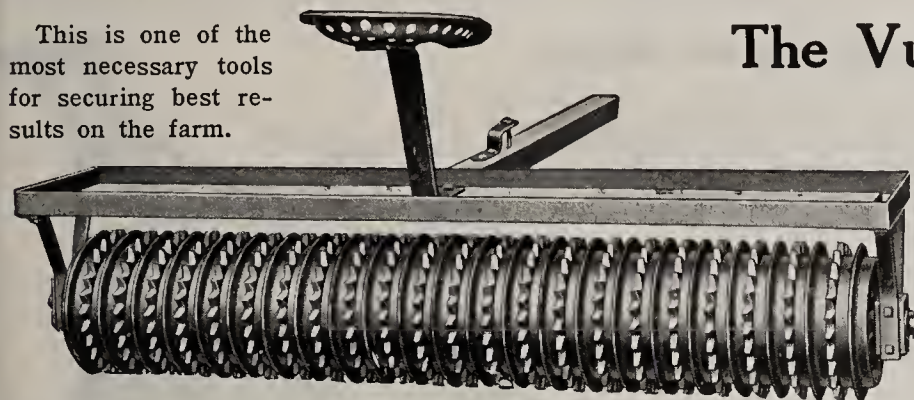
Beams. The under side of the Pittsburgh Combination Harrow is constructed of high-carbon angle steel beams, and the upper side of best oak beams, so there is no wear against the wood parts.

Teeth. Best spring steel, formed so that the pitch can be changed to suit the operator. They fasten on top of the frame and the bolt heads are protected so they will not wear off. Malleable Iron Tooth Clips and $\frac{3}{8}$ -inch bolts.

Stump guards (or braces) placed to protect the frame and make it perfectly rigid. With 16 teeth, weight 161 lbs., \$19.



This is one of the most necessary tools for securing best results on the farm.



The Vulcan Disc and Sprocket Roller Pulverizer

To grow crops successfully, it is necessary to retain moisture in the ground; to accomplish this the top soil must be kept from crusting, and this can be done thoroughly and easily by using a Vulcan Sprocket Pulverizer.

The sprocket or spike-rings break the clods, and together with the solid discs, pulverize and pack the soil and prevent rapid evaporation.

For planting corn, this machine will prepare a better seed-bed than can be completed in any other

way. It levels and pulverizes the soil and leaves the top packed firmly with fine mulch in perfect condition for receiving the seed. Also, in preparing a seed-bed for alfalfa or other grain, it cannot be surpassed, and it is exactly suited for breaking the crust which forms on winter wheat. For rolling corn, we supply spacing collars so that some discs can be removed and the remainder held at the proper width.

Upon the Vulcan Sprocket Pulverizer, frame-bars and axles are heavy and amply strong enough to allow the use of weights necessary to do good work.

The tongue is not bolted across top of the frame, therefore, weight-pan is left unobstructed, making it possible to use rails or other long weights.

End brackets are in one piece, giving rigid connection. End bearings are made of maple, soaked in oil, and are reversible, therefore, will give long service.

The Vulcan Sprocket Pulverizer and Packer is strongly constructed throughout and will give you long and satisfactory service. It is made in the following sizes:

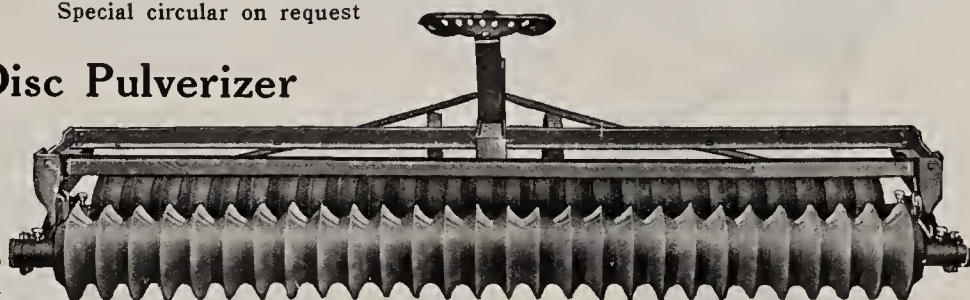
8-ft., Single Section. 950 lbs.	\$61 50	15-ft., Three-Section. 1,880 lbs.	\$123 00
10-ft., Single Section. 1,068 lbs.	76 00	Doubletrees and Neckyoke, extra.	3 50
11-ft., Three-Section. 1,388 lbs.	95 00		

Special circular on request

Buch's Double Gang Disc Pulverizer

This tool has two gangs of iron discs which crush and cut lumps, pack out all air-spaces, and level the surface of the field, all in one operation.

The discs of the back gang come between those of the front gang so that no lumps are missed. This Pulverizer, with a harrow for bringing up the lumps to the top will make a perfect seed-bed in any soil. The discs of the front gang build up a set of ridges and the back gang, coming half way between, splits and works these ridges over, thus stirring the soil.



PRICES:

8 ft.—21 front discs 15 in. diam., 22 rear 12 in.; weight 1,000 lbs. \$73.
For carriage instead of long pole, extra \$8. Doubletrees and Neckyoke, extra \$3.

Prices on other sizes quoted on request

Prices on larger and smaller sizes quoted on request.

Pittsburgh Steel Land Roller

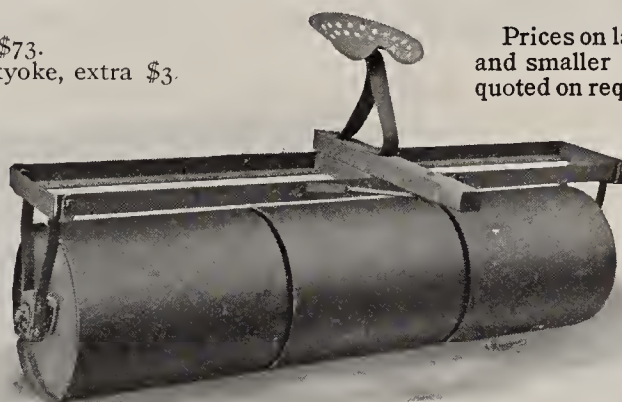
Drums or rolls are made of heavy, 12-gauge high carbon steel, with pressed steel ends, and will not dent.

Axles are 1 5/8 inches in diameter; angle frame of high carbon steel, 3 x 3 x 5/16 inches.

Hangers are of heavy wrought steel with hardwood boxings.

The frame is constructed so that it may be used as a weight-box should additional weight be required.

Pole sets on top of frame, thus enabling us to use shorter and more rigid hangers. The hitch is underneath the tongue, reducing the draft and neck weight to a minimum. 8-foot, 3 section, 24 inches in diameter. Weight 535 pounds, \$38.50. Doubletrees and Neckyoke, extra \$3.

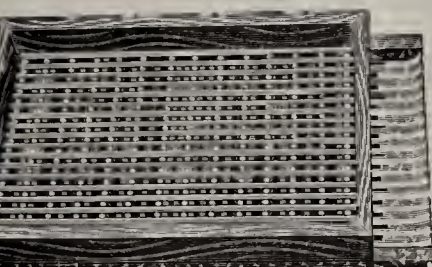


Perfection Corn-Grader

A seed Corn-Grader has become a necessity in getting a uniform stand of corn. No planter will drop uniformly unless the seed is graded. Graded seed insures perfect dropping, stronger plants and increases the yield 5 to 15 bushels per acre.

There are four grades of corn on every ear. (1) The small kernels; (2) the large, odd-shaped kernels; (3) the broad kernels too thin for good seed; (4) the even-sized perfect kernels.

This Grader sorts them out in one simple operation. It has a special lower screen construction by which it gets four grades of corn. It has a guard on the lower screen to prevent the spilling of the corn while grading, and to enable all of the screen to act on the corn at once, thus making rapid work.



Capacity: 6 to 10 bushels per hour.

Size 12 x 19 inches

Price, \$1, postpaid \$1.15

Dunham Water-Weight Lawn Roller

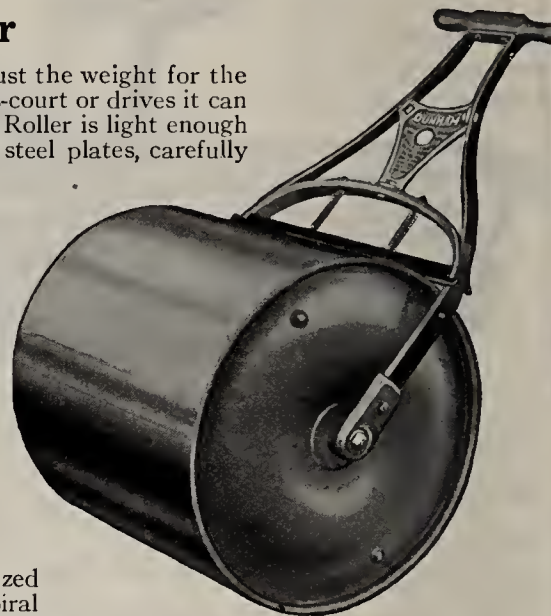
This Roller has a steel drum into which water can be poured until the Roller is just the weight for the work at hand. For soft lawns it will not need so much water, while for firm turf, tennis-court or drives it can be made as heavy as desired. When through rolling, all water is emptied out and the Roller is light enough to be easily handled and put in the basement or garage. The drum is made of heavy steel plates, carefully welded to form a solid one-piece container for the water.

	Diameter inches	Width inches	Sec- tions	Weight empty	Weight filled with water	Price
No. 1	14	15	I	45 lbs.	115 lbs.	\$10 75
No. 2	14	24	I	60 lbs.	175 lbs.	11 50
No. 4	18	24	I	82 lbs.	265 lbs.	13 75
No. 5	18	24	I	85 lbs.	265 lbs.	17 00
No. 7	24	24	I	110 lbs.	420 lbs.	19 75
No. 9	24	32	I	130 lbs.	565 lbs.	22 50

Nos. 5, 7, and 9 have roller bearings and handle brace as shown in cut.

Nos. 1, 2, and 4 have plain bearings without arched brace between handles.

Prices on Horse- and Tractor-drawn Rollers, also Fairway Rollers, quoted on request



Moe's Fertilizer Spreader and Seeder

Moe's Fertilizer Spreader and Lawn Seeder will spread uniformly any dry pulverized commercial fertilizer, pulverized lime, ashes, bone meal or grass seeds. Easy acting spiral agitator. Quick adjustment of the feed, any desired opening or complete shut-off. Runs very easily, no hard pushing or tugging, no clogging and spreads uniformly and in quantity as desired. Works either way, push or pull. Hopper is of galvanized steel. Wood handle and steel wheels.

No. 500. Size 12 x 20 inches, and 10 inches deep. Capacity about 2½ pecks of fertilizer. \$6. No. 505. Size 16 x 9½ inches, and 8 inches deep. Capacity 25 lbs. of fertilizer. \$2.75.

Other Fertilizer Spreaders shown on page 70

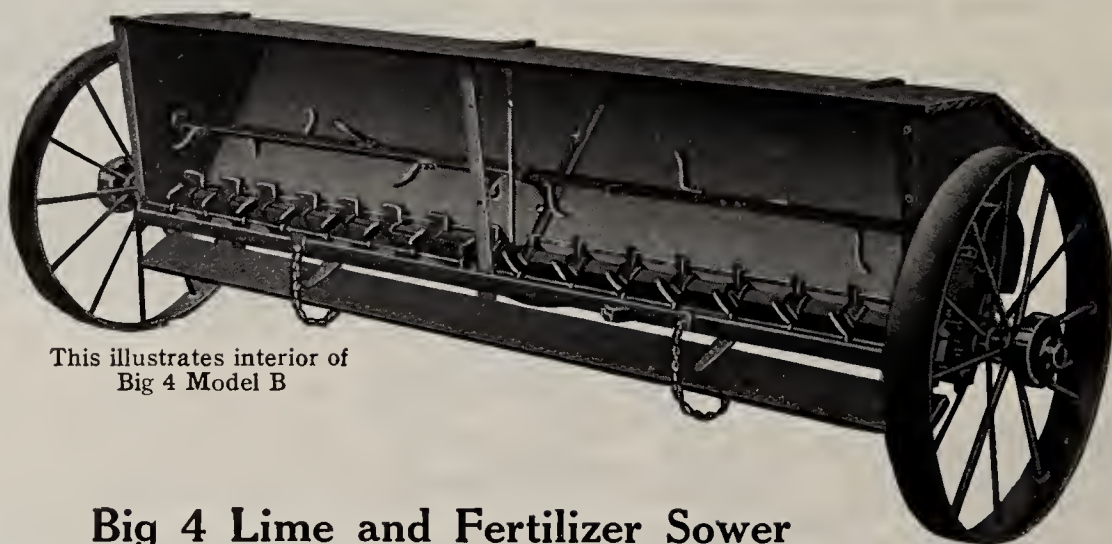


Spike Disc Lawn and Green Cultivator

Lawns and putting greens require cultivation the same as your flower-garden or other crops. The Spike Disc is the ideal tool for making, improving and saving the lawn, greens and fairway, baseball diamonds, playgrounds, parks, etc. Its high carbon alloy steel saw teeth cultivate and aerate in one operation—thus eliminating the hard-baked surface and forming a mulch so necessary for retaining moisture. Use the Spike Disc frequently, not only for cultivating but reseeding, fertilizing and top dressing.

No. 30. Rolling width, 18 inches. Has 19 discs, each 9½ in. diameter, \$27.50. No. 32. Same as No. 30 but with two handles for two-man operation, \$30. No. 22. For home lawns. Rolling width, 10 inches. Has 11 discs, each 14 in. diameter, \$15.

Circular and price of Horse- and Tractor-drawn outfits on request



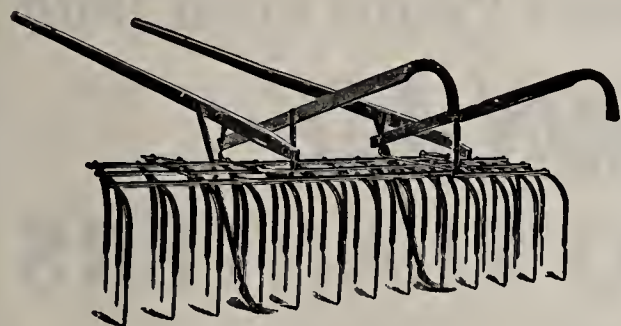
This illustrates interior of
Big 4 Model B

Big 4 Lime and Fertilizer Sower

This is an efficient and strongly built Lime and Fertilizer Sower. Can handle any fertilizer fine enough to pass through the ½-inch-mesh screen in each hopper in amounts ranging from 400 to 6,000 pounds per acre.

The Improved Rotary Wing Feed forces the lime evenly through feed-spaces at bottom of the Sower. The two feed-shafts are controlled by a lever which throws either side out as may be required, and gauge on rear of hopper shows amount of material sown. Low steel wheels keep the Sower close to the ground. Special throw-out device is handy when going to and from the field. This Sower is built in standard 8-foot size, with 10-bushel capacity.

Model A, with Single Agitator. Weight 425 lbs. \$52 50 | Model B, with Double Agitator. Weight 510 lbs. \$67 50



Hallock Walking Weeder

No successful farmer of today considers that his outfit of modern tools is complete unless he has a Weeder. The experience of the last few years has satisfied all users of this tool that it is one of the most important on the farm, and is an absolute necessity for best results. In its operation it works over and among the plants without injury, destroys all the small weeds, breaks up the crust, mellows the ground, and in this way puts the plants in best possible condition for rapid growth. The Weeder is substantially built from the best of materials. The teeth are located in three rows, and they are made of high quality steel all properly shaped for best work. Equipped with runners for transporting to and from the field. Made in two sizes.

8-foot, with 39 teeth. Weight 90 lbs.....\$13 50
9-foot, with 45 teeth. Weight 100 lbs..... 15 00

Farquhar Riding Weeder

**KILLS WEEDS • CONSERVES MOISTURE
STIMULATES PLANT-GROWTH**

This is the most profitable implement on the farm. Kills small weeds close around the plants at a time when the weeds are easy to kill and when the tender plants need all the sunshine and air available.

The Weeder may be used immediately after planting, keeping the surface of the soil loose and friable and at the same time destroying the weed seeds as they germinate.

Cultivation with the Weeder prevents the ground from "baking" or forming a hard crust. For this reason the use of the Weeder prevents plant-retardation, and by reason of the loose, friable soil, plant-growth is stimulated.

The Farquhar Riding Weeder has distinctive features which commend it to progressive farmers: The angle-iron frame is strongly built; the 30-inch wheels are mounted on a steel axle with adjustable axle braces which prevent springing or bending of axle when wheels are widest spread. These braces are fastened to set collars on inside of wheels and are adjusted with a set screw, permitting a wheel-spread from 46 to 60 inches, straddling one or two rows when spaced from 30 to 42 inches apart.

There are 63 teeth of high carbon steel and goose-neck shape.

The tooth-bars are balanced on the tongue instead of on the lifting lever, which is not only more convenient and easier to operate with an even balance, but assures a more even and uniform cultivation.

The Grass Seed Attachment, supported by a steel frame and the tongue, sows in front of the teeth and is driven from the sprocket on the ground wheel. Quantity ranges from 4 to 20 quarts per acre. Width 12 feet. Price \$46. Standard Neck-Yoke and Evener \$3.50. Grass Seed Attachment, extra if wanted, \$24.



Farquhar "Non-Wrap" Manure Spreader

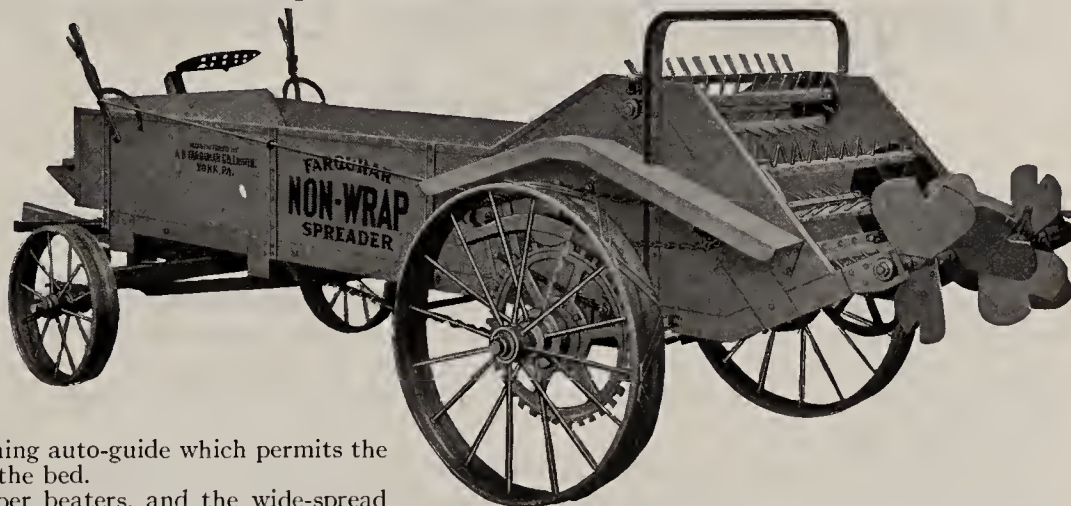
**Positively No Wrapping
of Beaters**

**EASY TO LOAD • LIGHT DRAFT
EVEN DISTRIBUTION
EASY RUNNING**

Farquhar patented "Non-Wrap" Spreader does more work, does it better, and produces greatest returns. Patented oscillating tooth-bars overcome the difficulty of wrapping around the beaters. The frame is all steel, strong and rigid, and the main channels run the entire length of the Spreader. Front truck is equipped with short-turning auto-guide which permits the front wheels to turn at right angles to the bed.

The rear drive wheels, lower and upper beaters, and the wide-spread distributor are equipped with roller bearings which reduce the friction and greatly lessen the draft.

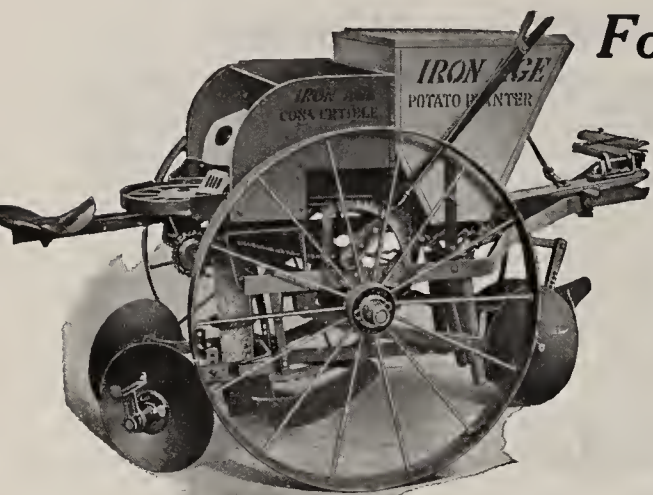
Farquhar Spreaders are supplied throughout with the Alemite Oiling System. Grease-gun is furnished with each Spreader.



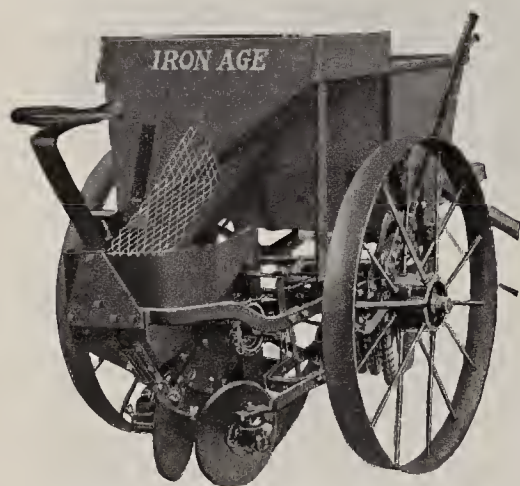
Capacity, 60 to 75 bushels; feed-range, 4 to 24 loads per acre. Price, with 2-horse Hitch or Tractor Hitch, \$177.50. Brake extra, if wanted, \$6.50.

FARQUHAR MODEL 10 SPREADER (Not illustrated)

This Spreader is in every particular the same as the Farquhar "Non-Wrap" except it does not have the "Non-Wrap" oscillating beater bars. Price \$157.50. Ask for special bulletin giving detailed description.



Iron Age Assisted-Feed Planter



Iron Age Automatic-Feed Planter

For Greater Potato Profits Plant With **IRON AGE** **POTATO PLANTERS**

Assisted Feed • Automatic Feed

The Iron Age Assisted-Feed (two-man) Planter is machine-fed, with hand corrections made by boy or man, and approaches most nearly 100 per cent planting. Recent improvements in adapting the elevator wheels to all sizes of seed have greatly reduced the work of the man on the rear seat.

The Iron Age Automatic-Feed Planter has adjustable picks for small, medium, or large seed. Has a very high degree of accuracy in planting—very few misses or doubles, and no bruising of seed. Seed hopper interchangeable with Assisted-Feed Planter. Picker wheel in plain view of driver at all times.

Both types of Planters are built with or without fertilizer attachment. This attachment sows high or low-analysis fertilizer in quantities desired. Fertilizer uniformly distributed on both sides of seed absolutely free from danger of fertilizer coming in contact with seed. The spacing of the seed in the row can be adjusted for 7, 8½, 10, 11½, 13½, and 15 inches apart. Special sprockets can be furnished for other spacings.

The opening plows lift and turn the soil, producing loose furrows. Seed-planting shoe splits the ridge between the furrows, making a groove for the seed and at the same time the wings move the soil to each side, covering the fertilizer in the furrows about 2 inches from the seed. Iron Age Planters have convertible disc covering gangs for ridge covering or shallow covering.

No. 410.	One row, Automatic Feed, without Fertilizer Distributor.....	\$107 50
No. 410R.	One row, Automatic Feed, with Fertilizer Distributor.....	142 50
No. 424.	One row, Assisted Feed, without Fertilizer Distributor.....	107 50
No. 424R.	One row, Assisted Feed, with Fertilizer Distributor.....	142 50
	Doubletree and Neck-yoke, extra, if wanted	3 75

Price of two-row and three-row Planters quoted on request

Before you buy a Potato Planter

be sure to see the Iron Age. Complete catalogue on request.

Farquhar—Iron Age Elevator Potato Digger

*A two-horse Digger for large or
small growers*

A light-draft, substantially built Digger that will dig 4 acres a day under average conditions. The 20-inch throat gives ample room for vines, etc., without choking.

Elongated or elliptical sprockets carry the elevator web, giving it a rising and falling movement, thus producing the agitation which separates the vines and causes most of the soil to fall through the web as soon as it passes the heel of the shovel. The endless elevator chain or web is built of interlocking crossrods.

Rigid, steel frame holds shovel at right depth to get all the potatoes, whether deep or shallow, and in stony, hard, clayey, or mellow soil. Rigid tongue gives full control in holding Digger over row on level ground or steep hillside. 27-inch wheels, with 3-inch rims, with cleats ¾ inches deep, furnish ample traction. Two-wheel front truck firmly carries the front end. Price, \$112.50. Doubletree and Neck-yoke, extra, if wanted, \$3.75.

Special catalogue on request.



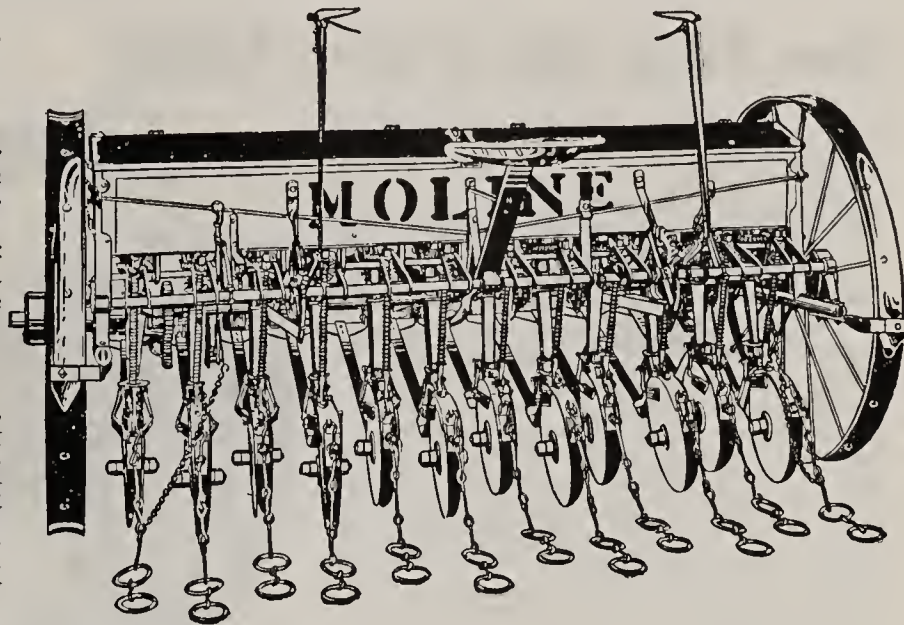
Moline-Monitor Fertilizer Grain Drills

Moline-Monitor Double Disc Drills save seed, increase the yield, and improve the grade of all grain crops. This has been demonstrated by many agricultural colleges and by thousands of farmers.

The Moline-Monitor is the original double disc. It deposits the seed at a uniform depth in the bottom of a wide, compact furrow with the downward turn of the discs. This insures even seeding and even growing.

Forms Wide, Compact Furrows

The two discs which are beveled on the outer edges, come tight together at the front lower quarter, forming a knife or wedge edge. As the machine is drawn forward, the discs first cut the soil the same as a rolling coulter on a plow and then wedge or split the furrow open, raising and compressing the earth on either side, which conserves moisture and makes a wide furrow. Less seed is required in such a furrow, as it has plenty of room in which to stool.



Uniform Seeding Depth

As the seed is dropped in front of the disc bearing with the downward turn of the discs, the discs aid gravity in carrying the seed to the bottom of the furrow. The discs on either side of the falling seed make it impossible for trash, dry top soil or anything else to get into the furrow before the seed. As the discs roll on, the moist earth which has just been displaced from the furrow falls back onto the seed before the dry surface dirt or trash falls in. Thus a uniform seeding depth is insured.

Every good seed sown with the Moline-Monitor Double Disc Drill grows; all sprout at the same time. This insures even growing and even maturing, obviating harvesting a crop, part of which is over ripe and part still in the milk.

PRICES WITH FERTILIZER AND GRASS SEED ATTACHMENTS

Double Disc Drills

10 double discs, 7 inches apart.....	\$167 50
12 double discs, 7 inches apart.....	187 50

Hoe Drills

10 x 7 Spring Hoe.....	\$150 00
12 x 7 Spring Hoe.....	160 00

Prices on other styles and sizes quoted on request. Before you buy a grain drill ask for special catalogue giving full details, testimonials and guarantee.

Prices include Covering Chains and Seat or Footboard.

Success Junior Potato Digger

The Success Junior is the most popular plow-type Potato Digger on the market. Just the Digger for the small grower—in fact, no farmer can afford to be without this Digger, even if he raises only sufficient potatoes for his own consumption.

It is simple in design, rugged in construction, is adjustable as to depth, light draft, easily operated and does a clean job of digging.

The weight of the double and single trees, together with the pull of the horses, draws the point into the ground, but its depth is regulated by the adjustable wheel at the end of the beam.

The point or shovel enters the ground and the furrow-slice is divided by the breaker; the double moldboard turns each half back over the wings and steel tines. Here the tines permit the soil to pass between them while the potatoes roll back over the end of the fork and remain on top of the ground.

The Beam and Handles are made from carefully selected and well-seasoned oak. Handles have adjustable braces accommodating themselves to the height and convenience of the operator, assuring easy and complete control.

Price, with single wheel foretruck \$13.50; with double wheel foretruck as shown in illustration, \$15.50.



"Improved Duplex" Potato Grader

Sorts and bags both No. 1 and No. 2 sizes in one operation

The advantage of grading potatoes by machine is now universally recognized. In the "Improved Duplex" we offer a well-designed and substantially built Grader. The main frame is heavy wrought-iron pipe, well balanced and well braced, portable and mounted on wheels, with a fully suspended side elevator which grades and bags the second size or No. 2 grade.

The bagging attachment holds four bags, thus simultaneously bagging two sizes or grades by continuous operation at one handling.

The grading aprons or belts are made to specification when required in regard to size of openings. The standard machine is fitted with grading aprons grading United States standards for both No. 1 and No. 2 sizes, namely 1 7/8 inches and 1 1/2 inches. The grading aprons or belts are made of round steel wire absolutely smooth on the grading side, and so formed that it will cause the belt to vibrate continuously thus effecting perfect grading.

Model A Hand Grader. Capacity 150 to 200 bushels per hour, depending upon the quality of potatoes being graded. \$65.

Model AA Hand Grader. (Not illustrated.) Identical with Model A, except without side elevator or bagging attachment. \$55.

Sure Drop No. 5 Corn Drill

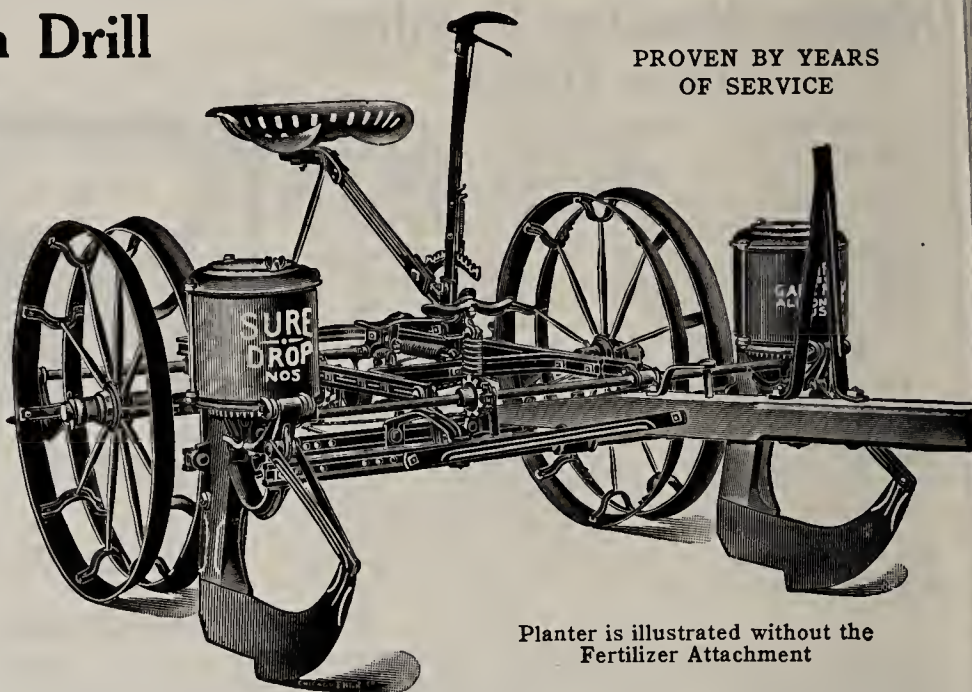
WITH EDGE DROP PLATES

The Sure Drop No. 5 is a two-horse machine for drilling corn, beans, and other similar crops that are grown in drilled rows. It is strictly a high-grade machine in every particular—as good as first-class material and skilled workmanship can make it. It is built almost entirely of steel and malleable iron, making it light, but especially strong and durable.

The Drill is adjustable from 28 inches to 44 inches between rows. By means of the three sets of plates which are regularly furnished and the 3-step sprocket wheel on the seed shaft, there are possible nine variations of the distance apart that seed can be dropped, varying from 6½ to 22 inches. Also special sprocket can be furnished for dropping closer than 6½ inches when wanted.

The Fertilizer Attachment is provided with a gate at the bottom of the hopper next to the spout. By raising or lowering this, various amounts of fertilizer are allowed to pass under and be delivered into the spout. The Fertilizer Attachment is thrown out of gear when the planter is raised, and thrown into gear again when the planter is lowered into the ground.

Furnished with 30-inch open-tire wheels.



PROVEN BY YEARS
OF SERVICE

Planter is illustrated without the
Fertilizer Attachment

PRICES

Without Fertilizer Attachment.....	\$60 00	Double-trees and Neckyoke, extra.....	\$3 50
With Fertilizer Attachment.....	85 00	Special booklet furnished on request.	

Avery New Union Corn Drill

The Avery New Union Corn Drill plants accurately because the double pitman drive insures positive action all the time. Also because the seed-plates are extra large, giving all the holes plenty of time to fill.

It plants to the right depth because the depth of planting in any kind of soil can be regulated by the *adjustable* opening shoe in connection with the *adjustable* clevis.

The frame is all steel which eliminates the use of castings. This adds long life and freedom from troublesome breakages. There are no sprockets to clog up, no chains to break.

The Fertilizer Attachment is gear-driven direct from the main pitman, again eliminating sprockets and chains.

The hoppers are extra large and hinged so they can be thrown back, exposing all the gears, or can be lifted off the frame without using a tool. Planter is regularly furnished with a set of four plates. Pea and Bean Plates can be furnished at an extra charge of \$1. Price with Fertilizer Attachment \$23.75.



Acme Corn Planter with Fertilizer Attachment

SIMPLE—DURABLE—ECONOMICAL

This combination Corn Planter with Fertilizer Attachment is a two-hand slide type with an adjustable segmental slide of pressed steel; the hoppers, hopper bottoms, and conveyor tubes are of steel. The polished steel jaws are arranged to drop corn on each side and a little above the fertilizer or phosphate, which is dropped in the center. Fertilizer drop is regulated to suit the operator. A good tool for hand planting and hand fertilizing at the same time. Price \$3.25, postpaid \$3.50.

The Eclipse All-Steel Rotary Hand Corn Planter

This Planter is of all-steel construction, but nevertheless light in weight and will last for years. Simple in operation and works easily. Price \$2.25, postpaid \$2.50.



Acme Planter



Eclipse Planter

Thompson's Royal

14 Feet Long

This Grass Seeder has won for itself first place among all kinds of Grass Seeders. Most accurate and economical machine for sowing clover, timothy, alfalfa, and other small seeds broadcast. Runs easily, and sows evenly in windy weather. The quantity of seed sown is accurately governed by the wheel, which moves correspondingly slow or fast as the machine is run over the ground. It is

**Chain Feed Grass Seeder**

32-inch Wheel

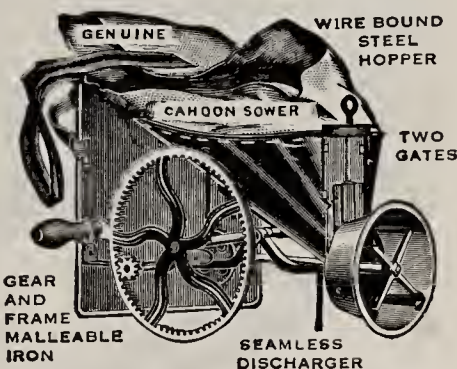
instantly thrown out of gear, and the amount of seed sown is quickly governed by changing the pin in the index plate as thereon indicated. Does not injure or bunch the seed, but evenly distributes it the full length of the hopper.

Sows all small seeds like Clover, Timothy, and Alfalfa. Price \$12.50

THOMPSON NO. 106 WHEELBARROW SEEDER (similar to above Thompson's Royal Chain Feed Grass Seeder) is suitable for sowing lawn seed on a large scale. Gives uniform 10-foot spread; adjustable feed. Weight 60 pounds. Price \$22.

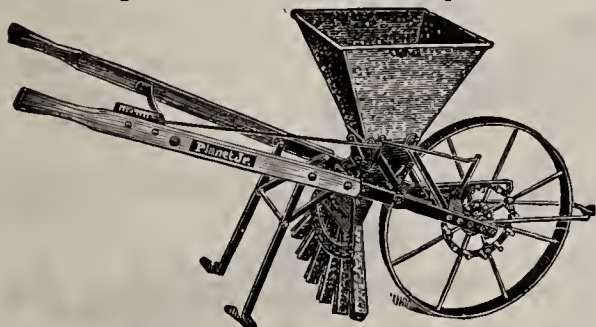
**The Cahoon Seeder**

The Cahoon Hand Broadcast Seed Sower, suitable for sowing all kinds of grain and grass seed, is one of the most efficient on the market today. The frame and handle gear are of malleable iron; the shafts of high-grade steel, with the gears securely fastened. The large gate is for grain and the small gate for grass seed; easily adjusted with automatic feeding gauge attached. The Cahoon is speeded so that the crank makes a complete revolution with each step. The bag is of 7-ounce duck and holds about 22 quarts. Price \$4.50, postpaid \$4.85.

**The Cyclone Seed Sower**

This Seed Sower can be used for sowing clover, timothy, and all other farm seeds that can be sown broadcast.

All the working parts are attached to a rigidly built frame of kiln-dried lumber. The Slope Feed-Board gives the seed a gravity flow and always keeps the hopper outlet filled without tilting the machine. The Automatic Feed Adjustment gives a positive force-feed and is quickly adjusted for different seeds. The touch of a lever will start or stop the flow of seed. Seed cannot clog or "rush." Price \$2.25, postpaid \$2.40.

**Planet Jr. No. 220 Fertilizer Distributor**

The No. 220 spreads fertilizer from 4 to 30 inches on the ground. The hopper capacity is one bushel and the weight of the load is placed over the wheel, making it easy to push. The No. 220 will distribute 100 to 2000 pounds of commercial fertilizer to the acre and will distribute fertilizer in the middles of three rows 12 to 14 inches apart; it will side-dress one side each of two rows up to 3 feet apart (one complete row; and corn in wider rows). You can use it in very narrow rows—as close as 9 inches. You can use it in 3½ to 4-foot rows by closing off the flow in three spouts and distributing through the other three—either on the right or left-hand side. Price \$26.

PLANET JR. No. 230A. Identical with the No. 220 distributor illustrated above except that it is equipped with a cultivating attachment. The No. 230A applies the fertilizer and thoroughly mixes it into the soil, all in one operation; has two front wheels, and is easily drawn by a horse. Price \$37.50.

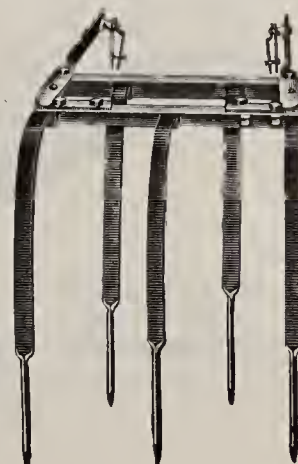
The Universal Fertilizer Attachment

Can be fitted onto most makes of riding cultivators in 20 minutes with an ordinary wrench, and can be detached by releasing one bolt. The flow of fertilizer is adjusted by a lever within reach of the operator without leaving the seat; can be adjusted to deposit fertilizer in the hill or drill it continuously. Throw-out device stops feed when backing or turning. Guaranteed to do the work for which it is intended. Price \$20.

Center Weeder Attachment

Can be fitted onto any iron-beam riding cultivator with our Universal Clamps. The small teeth loosen the ground directly around and among the small plants, going where the cultivator cannot reach.

Prices: 5-tooth attachment complete, \$3; 7-tooth complete \$3.50. By Parcel Post 25 cts. extra.



Avery Jack Rabbit Cultivator

THE ALL-PURPOSE, ALL-CROP CULTIVATOR

Perfect freedom of action; absolute ease of motion—these are the reasons for the increasing popularity of the Avery Jack Rabbit Cultivator. It offers farmers an easier way of cultivating all crops. There's perfect balance whether gangs are raised or lowered.

The control is so simplified and the moving parts so perfectly balanced that many of the manipulations are practically automatic upon the releasing of a pawl.

The tilting or leveling lever is placed in the center within convenient reach of the driver. It operates on the quadrant secured in the rear end of the pole, which allows a range of adjustment sufficient to overcome the most extreme conditions.

The individual gangs are manipulated by two short levers located on either side at the rear of the frame. The right-hand lever is the master lever—when operated by the side handhold it raises or lowers the right gang individually. When operated by the vertical handhold it raises or lowers both gangs simultaneously.

The width between the gangs is controlled by the rotary motion of a crank which is within easy reach.

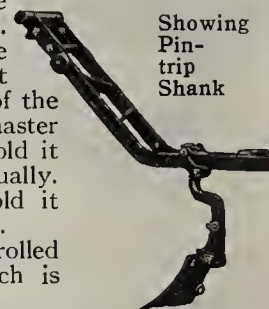
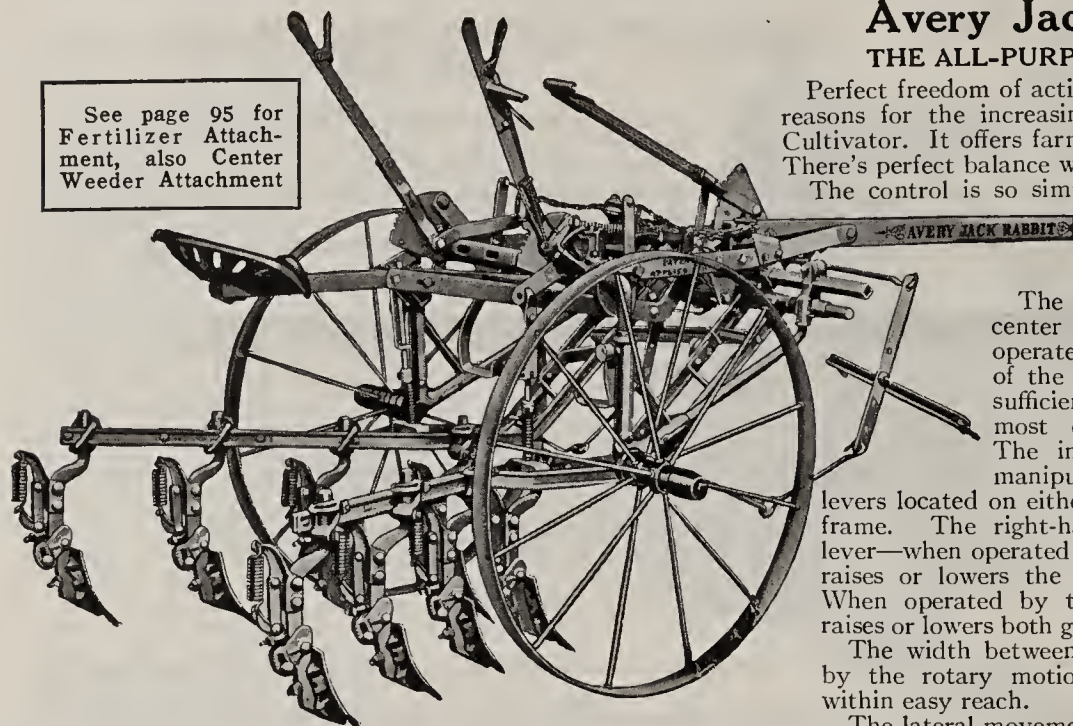
The lateral movement of the machine is controlled, while working, by stirrups and chain connections. A slight pressure of the left foot, for example, angles both wheels to the left, and vice versa. There is no lost motion. The axle and lower frame member are a combined one-piece forging. This swivels in its front connection and also in its connection to the arch, the whole being carried on rollers which operate on the pipe beam frame member. Angling the wheels to right or left does not affect the relative lateral position of the gangs. The extra-wide front gang bearings keep the gangs tracking in perfect alignment, regardless of the direction in which the wheels are angled.

The tread adjusts, by 1½-inch stages, from 36 to 48 inches.

The Avery Jack Rabbit will effectively cultivate any crop that is planted in rows 24 inches apart and wider. The wheels are extra strong, 38 inches high, equipped with dustproof hubs.

No. 4. 6-Shovel, Spring-trip.....\$58 00 | No. 41. 8-Shovel, Spring-trip.....\$62 00
No. 24. 6-Shovel, Pin-trip..... 52 00 | No. 51. 8-Shovel, Pin-trip..... 54 00

Six-Shovel Cultivators are furnished with six 3½-inch double-pointed Shovels; Eight-Shovel Cultivators with eight 2½-inch Shovels. Prices include shields. Hillers, if wanted, are \$1.75 extra. Descriptive circular on request.



Pittsburgh Cultivators

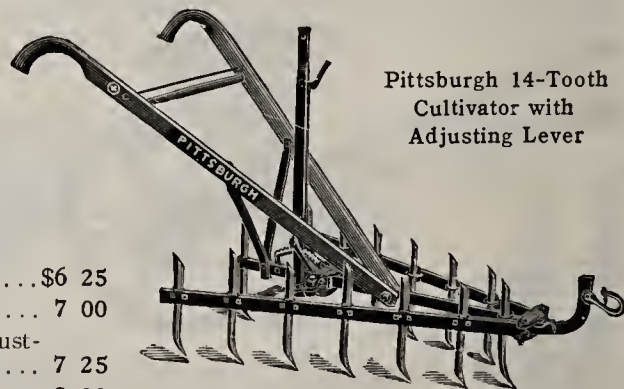
The Pittsburgh Cultivators are made of round-edge steel, and are highly finished. The outside stay braces hold the frame solid to any width it may be set.

Extra care is taken in the "setting" of the shovels to see that they "face" the work properly, have correct "pitch" and are evenly spaced so that they will cut all the ground.

Pittsburgh 5-Tooth Cultivator with Hand-Wheel Adjustment



Pittsburgh 14-Tooth Cultivator with Adjusting Lever



5-Tooth Cultivator with Hand-Wheel Adjustment.....\$6 25

5-Tooth Cultivator with Adjusting Lever.... 7 00

7-Tooth Cultivator with Hand-Wheel Adjustment..... 7 25

7-Tooth Cultivator with Adjusting Lever.... 8 00

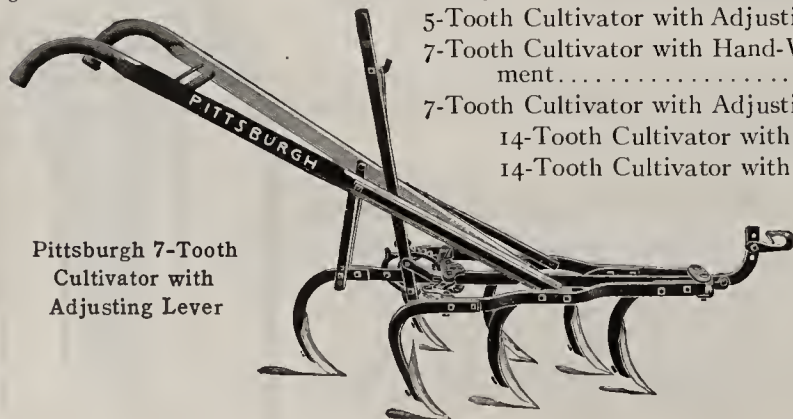
14-Tooth Cultivator with Hand-Wheel Adjustment.....\$6 35

14-Tooth Cultivator with Adjusting Lever..... 7 25

Gauge Wheel Extra..... 85

Horse Hoes Extra for 5- and 7-Tooth Cultivator... 1 50

Pittsburgh 7-Tooth Cultivator with Adjusting Lever

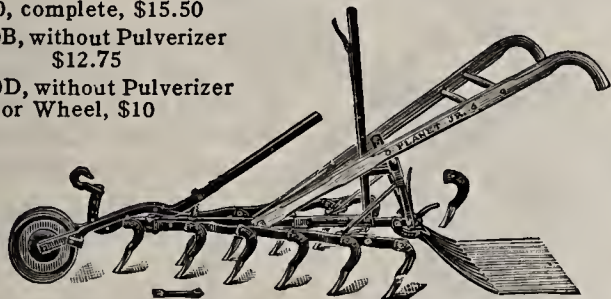


Horse Hoes for 5- and 7-Tooth Cultivators

PLANET JR. CULTIVATORS

Planet Jr. Twelve-Tooth Harrow, Cultivator and Pulverizer

No. 90, complete, \$15.50
No. 90B, without Pulverizer \$12.75
No. 90D, without Pulverizer or Wheel, \$10

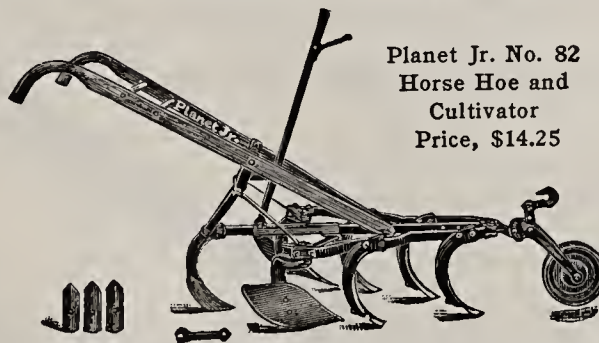


With the Twelve-tooth Harrow you go as deep or shallow as you like, come up close to row without injuring plants, cut out all weeds, stir the soil and fine it as with a garden rake. You widen and narrow as you please between 12 and 32 inches. A favorite with strawberry-growers, market-gardeners, etc.

We have other sizes and styles of Planet Jr. Cultivators than shown in this Catalogue. Write for a Planet Jr. Catalogue

No. 82 Planet Jr. Horse Hoe

Planet Jr. No. 82
Horse Hoe and
Cultivator
Price, \$14.25



A very popular tool because of the large amount and great variety of work that can be done with it. Finishes rows up to 42 inches apart and works the middle complete at one passage. Zigzag frame is particularly strong and the seven teeth insure fine and thorough cultivation.

No. 83 Plain Cultivator. Same as No. 82, but with 7 cultivator teeth only and without reversible standards. Price, \$12.75.

PITTSBURGH SHOVEL PLOWS

Pittsburgh Steel-Beam Double-Shovel Plow

Shovels have proper pitch for entering ground right, and making steady running Plow. Beams made of solid steel, rolled, tapering at point.



Price, \$4.10

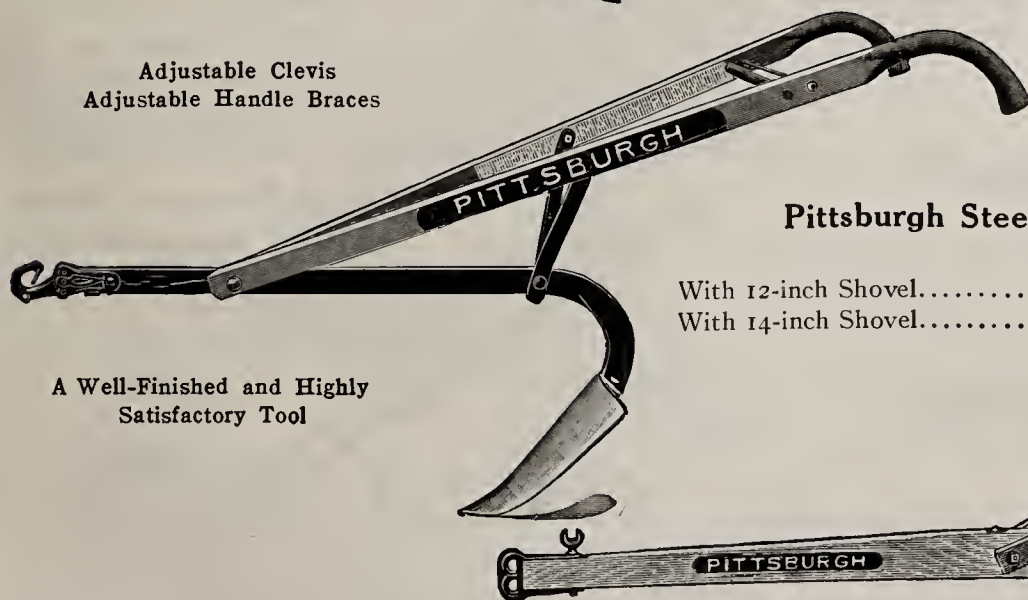
Pittsburgh Steel-Beam Triple-Shovel Plow

The Triple-Shovel Plow is an excellent tool for cultivation of corn and potatoes, or anything that is planted in rows, and is adapted to the wants of both the farmer and gardener. By its use the entire surface of the ground is plowed and still left smooth and level.



Price, \$6.25

Adjustable Clevis
Adjustable Handle Braces



Pittsburgh Steel-Beam Single-Shovel Plow

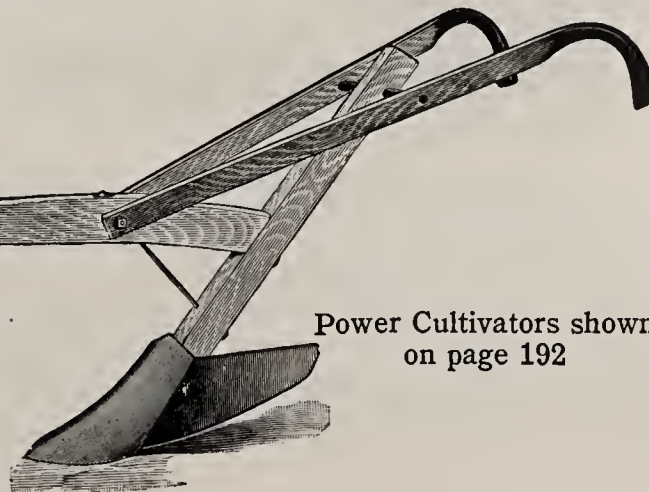
PRICES

With 12-inch Shovel.....	\$4 00
With 14-inch Shovel.....	4 25

A Well-Finished and Highly
Satisfactory Tool

Pittsburgh Wing Shovel Plow

For hilling potatoes and other similar work, this tool will be found highly satisfactory. The wings are adjustable by means of the punched straps or braces that support them, and they can be set to any desired angle. Width of main shovel is 12 inches, and with wings extended to limit, it makes a total width of 26 inches. Price, \$5.



Power Cultivators shown
on page 192

Planet Jr. Farm and Garden Tools

Planet Jr. Tools are the greatest savers of time, labor, and money ever invented for the farm and garden. They pay for themselves in a single season in bigger and better crops, and last a lifetime. Fully guaranteed.

No. 3 Planet Jr. Hill and Drill Seeder

Price, \$16.50

Holds three quarts of seed. A favorite among onion-growers, market gardeners, and seedsmen. Sows accurately in a narrow line making wheel-hoe cultivation easy.



No. 4 Planet Jr. Combined Hill and Drill Seeder, Wheel Hoe, Cultivator, and Plow

Price, complete, \$16.75
Weight, 50 lbs.

As a Seeder only (No. 4D) \$13.50

Holds 2½ quarts of seed



Plants in hills 4, 6, 8, 12, or 24 inches apart.

Soon pays for itself in the family garden as well as in the larger acreage. Sows all garden seeds (in drills or in hills), plows, opens furrows and covers them, hoes and cultivates quickly and easily. No. 4D, Hill and Drill Seeder, same as above less the cultivating attachments, \$13.50.

No. 11 Planet Jr. Double-Wheel Hoe Cultivator, Plow, and Rake

Price, with attachments as in cut, \$13

Weight, packed, 39 lbs.



A Single and Double-Wheel Hoe in one. Straddles crops till 20 inches high, then works between. Has steel frames and 14-inch steel wheels. The greatest hand-cultivating tool in the world.

Planet Jr. No. 12 Double and Single-Wheel Hoe. Same as No. 11 but less the rakes and one pair of hoes. Price, \$10.25.

Garden Tractors shown on page 192

No. 25 Planet Jr. Combined Hill and Drill Seeder, Double and Single-Wheel Hoe, Cultivator, and Plow. Price, \$21

Weight, packed, 61 lbs.
Holds 2½ quarts of seed



As a Seeder it is practically the same as the Planet Jr. No. 4, and as a Wheel Hoe it has the same steel frames and cultivating attachments as the Planet Jr. No. 12 Double-Wheel Hoe.

Two acres a day can easily be worked, and when it is done it will be a better job than several men could have done in the same time with hand hoes.

No. 300 Planet Jr. Drill Seeder

Price, \$18.75

Weight, packed, 55 lbs.
Capacity, 4 quarts

15-in. driving wheel
11-in. flat steel covering wheel



The No. 300 Seeder is a very efficient plate seeder intended primarily for the market gardener and farmer. Quick, easy, and accurate adjustment for all sizes of seed can be made in an instant. Plates provide 39 different holes through which a patented feed-wheel drops seeds in a steady, even row without crushing or jamming. It has removable hopper for emptying excess seeds.

No. 16 Planet Jr. Single-Wheel Hoe, Cultivator, Rake, and Plow

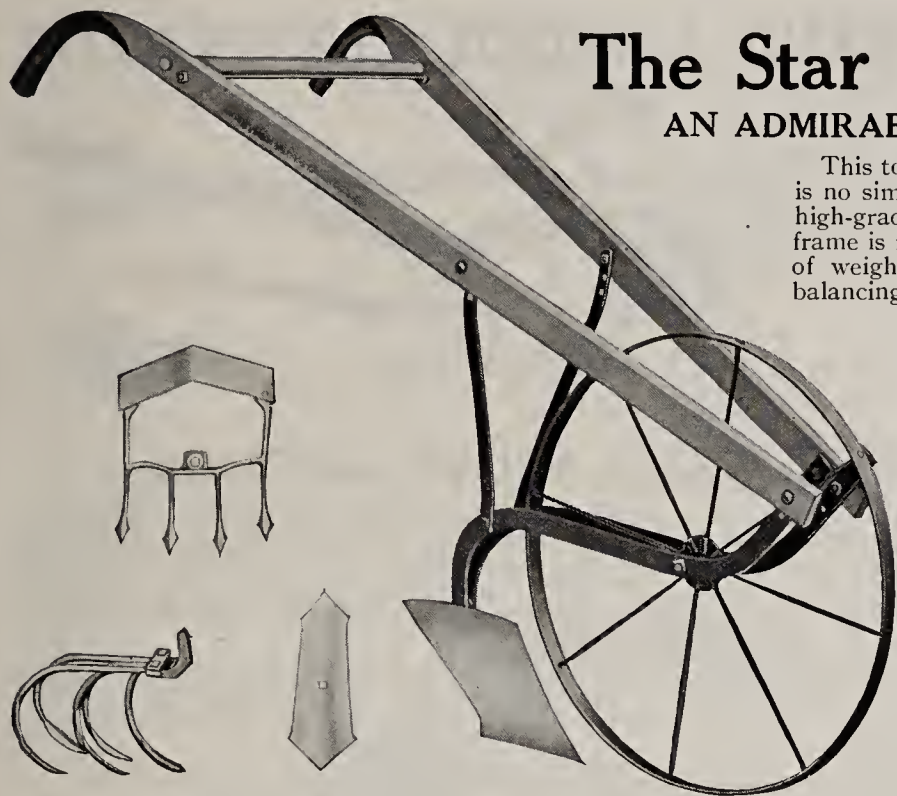
Price, \$8.50
Weight, 30 lbs.

Steel Frame
15-in. Steel Wheel



Equipment very complete, including one pair of 6-inch hoes for weeding and shallow cultivation, three cultivator teeth for general and deeper cultivation, one plow with landside for hilling, ridging, and plowing, one 3-tooth and one 5-tooth rake for fine, close cultivation, and one leaf-lifter, which is useful in protecting overhanging leaves and vines. An ideal machine for the family garden.

Planet Jr. No. 17 Single-Wheel Hoe. Same as No. 16 but without the rakes. Price, \$7.35.



The Star Garden Cultivator

AN ADMIRABLE TOOL FOR THE GARDEN

This tool is a universal favorite and it is safe to say that there is no similar one made that in the matter of ease of operation, high-grade material, and fine finish will equal the Star. The frame is made of stiff steel and is so constructed that the center of weight falls directly over the wheel-axle, making it self-balancing and able to be propelled with the minimum power. The handles can be raised or lowered to suit the operator's height. The 24-inch wheel has a convex rim which greatly adds to its strength.

The 5-prong Attachment is available separate from the Plow and can be used on other of the same general type of garden plows. It cultivates the soil properly and gives the weeds no chance to sprout. Constant stirring of the soil with this attachment prevents evaporation of valuable soil-moisture, which feeds and gives life to growing plants. No Garden Cultivator is complete without this attachment.

No. 1. With Double-point Blade, Moldboard and 4-prong Attachment. \$3.25.

No. 2. With Double-point Blade, Moldboard, and 5-prong Attachment. \$3.50.

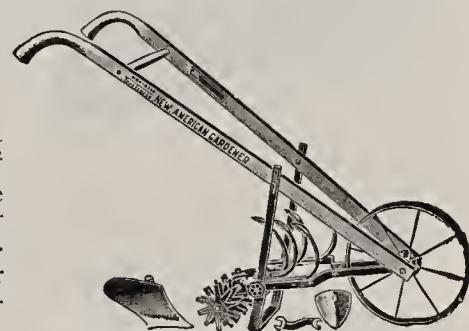
5-prong Attachment alone 75 cts., postpaid 85 cts.

New American Gardener Cultivator

The New American Gardener is a time- and labor-saver; it is easily handled, requiring less effort than many other Cultivators. It combines three practical cultivating tools of greatly improved design attached to one head, and the New Mulcher-Pulverizer used with the scuffle hoe. A few turns of the hand-wheel releases the head, allowing it to revolve in order to place any of the three tools in position for use. There are no lost attachments to look after.

G2. Furnished with one 4½-inch wide Shovel, one thin-bladed Scuffle Hoe, five Cultivator Teeth attached to the revolving head, and one 8½-inch Mulcher-Pulverizer. \$6.50 (postpaid \$6.90).

G2X. Same tool equipped with Moldboard Plow. \$7 (postpaid \$7.40).



G2X. New American Gardener Cultivator

Iron Age New Model Seed Drill

For many years this tool has been the favorite seeder with thousands of gardeners.



Will sow all kinds of small vegetable seeds. It has exact regulation of seed-discharge by using an eccentric index or indicator, which adjusts the slide

for the seed-opening exactly where you want it.

The flow of seed can be instantly stopped by a swinging cut-off, operated by a cord and ring on the handles. Capacity of hopper 2 quarts. Weight 50 lbs. Price \$11.50.

The Planet Jr. Jiffy Hoe

The handiest little Wheel Cultivator ever made for a backyard garden. It weeds and it cultivates. Equipped with 3-prong Rake. (Not illustrated.) Price \$2.

Iron King Combined Seeder and Fertilizer Drill

A sturdy, well-designed machine, but light enough to be pushed by hand. It handles most

small vegetable seeds with considerable accuracy, drilling a small, easily regulated amount of commercial fertilizer in the row under the seed. Agricultural colleges and experiment stations are more and more coming to recommend this method of planting, and many commercial growers are now adopting it. Built by the makers of Planet Jr. tools. Weight 48 lbs. No. 45. Price \$23.50.



Gem Single Wheel Hoe and Cultivator

A strong, durable tool that can be used as a Wheel Cultivator anywhere. Equipment consists of a set of 5 slender Cultivator Teeth, one 4-inch and one 8½-inch Scuffle Hoe and a pair of Plows. Weight 28 lbs. (Not illustrated.) Price complete \$8.25.

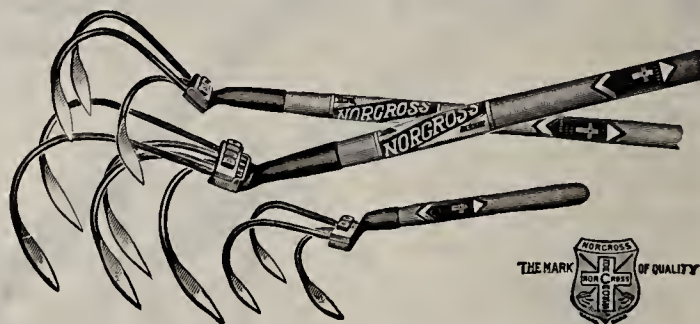


THE POPULAR ADJUSTABLE

HAND GARDEN CULTIVATOR

The Norcross Line provides, for both men and women, the most modern tools at a moderate cost. Made in three sizes, of highest quality material, attractively finished and especially well constructed. The sharp tapering prongs pulverize the ground thoroughly from 1 to 5 inches deep and leave it level, loose, and untrampled. Works between rows or center shovel may be removed and rows straddled. It permits working the soil close up to plants without injury to roots or foliage.

5-prong, 4-ft. handle (weight 3 lbs.)\$1 00
3-prong, 4-ft. handle (weight 2 lbs.) 80
Midget, 9-in. handle (weight 12 ozs.) 50
Midget by parcel post, prepaid, 60 cts.



The Barker Weeder, Mulcher and Cultivator

One man with a "Barker" can do more work, do better work than ten men with hoes. It cultivates and pulverizes the soil, forming a soil-mulch, which prevents evaporation, thus conserving moisture. The lower knife passes below the surface of the ground, where it cuts off all the weed roots, while the revolving reel working in combination with it, cuts up the soil, separates the dirt from the weed roots and forms a perfect soil-mulch. Made in two models, the Barker and the Barker Jr.

The Barker has solid wheels which are more substantial than open wheels and do not tend to fill up with moist dirt. It is heavier and stronger throughout and is especially recommended if your ground is strewn with sticks, roots, or stones. The favorite garden machine for more than a quarter century.

No. 9D. An excellent size for general all-round garden work. Women and children use this size. Weeds and mulches a strip 9 inches wide.\$7 50

No. 10D. Lower knife cuts 10-inch strip. Favorite for large gardens and with truck growers. 8 60



The Barker Jrs. are built of the same high-quality materials as the Barker except they have spoke wheels and are made of slightly lighter material.

No. 6. Especially adapted where rows are close together or for small gardens. Lower knife cuts strip 6 inches wide.\$5 25

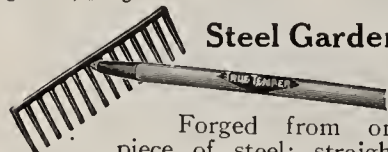
No. 8½. Women and boys and girls like this size. It weeds and mulches a strip 8½ inches wide. 5 95

No. 10. A very popular size. Works a strip 10 inches wide. 6 45

Ask for Special Descriptive Circular. Prices on other sizes quoted on request

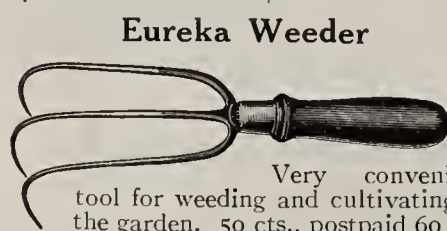
Japanese Broom Rake

Made of split bamboo, cleans the lawn or grass-plot as completely as though swept with a broom. Price, 18-in., 60 cts.; 24-in., \$1; 30-in., \$1.50.



Steel Garden Rake

Forged from one solid piece of steel; straight teeth; hammer-drawn, single shanks.
10 teeth.....\$1 10 | 16 teeth...\$1 25
12 teeth..... 1 15 | 18 teeth... 1 45
14 teeth..... 1 20

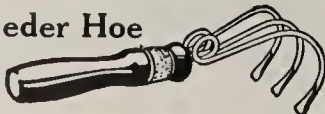


Eureka Weeder

Very convenient tool for weeding and cultivating in the garden. 50 cts., postpaid 60 cts.

Magic Weeder Hoe

A handy tool for work in the flower- or vegetable-garden. 20 cts., ppd. 25 cts.



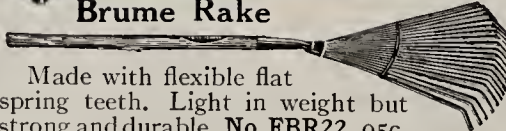
"Francis" English Wall Nails

Made with unbreakable shanks and soft lead heads or clips, for securing fruit trees, roses, and climbing plants to walls. 1½-in., 50 cts. per doz., \$3.50 per 100.



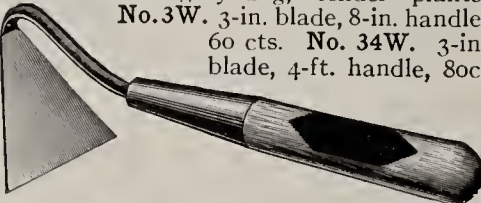
Brume Rake

Made with flexible flat spring teeth. Light in weight but strong and durable. No. FBR22. 95c.



Triangular Steel Weeders

Used extensively for close garden-work among young, tender plants.
No. 3W. 3-in. blade, 8-in. handle, 60 cts. No. 34W. 3-in. blade, 4-ft. handle, 80c.



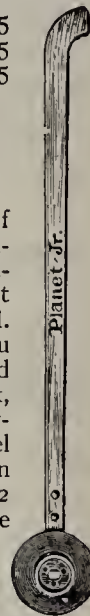
Gem Garden Spade

A handy tool where careful cultivation is required. 50 cts., postpaid 60 cts.



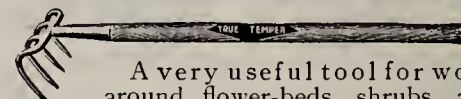
No. 2 Planet Jr. Grass Edger

Neatness is the greatest secret of attractiveness in grounds surrounding a house, and to have this neatness the grass bordering walks must be frequently edged or trimmed. With the No. 2 Planet Jr. Edger you can edge either straight or curved walks of cement, stone, or brick, rapidly and easily. The sharp edging disc is made of high-grade steel and will last for years. Your lawn mower needs an assistant—the No. 2 Planet Jr. Grass Edger—to finish the job. \$1.50, postpaid \$1.70.



Speedy Cultivator

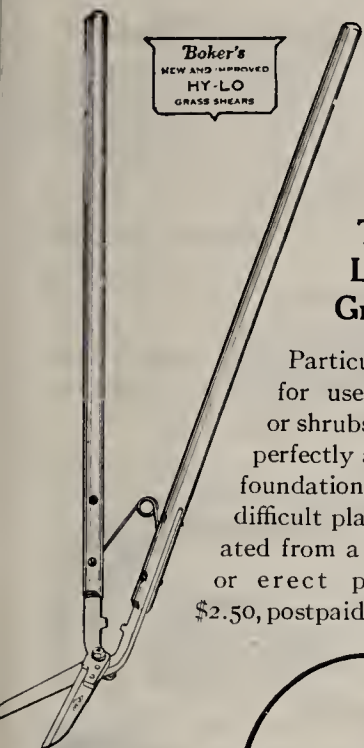
A very useful tool for work around flower-beds, shrubs, and roses. No. SC4. With 4 tines, \$1. No. FW3. With 3 tines, 90 cts.



Drop-Shank Steel Garden Trowel

Large and strong; made for hard service. Blades and shanks are forged from one solid piece of high-grade steel, tempered and polished. No. DST. 90c., postpaid \$1.





Boker's
NEW AND IMPROVED
HY-LO
GRASS SHEARS

Hy-Lo Grass Shear

For trimming around walks and flower-beds. 6¾-in. blades, 30-in. hardwood handle. \$1.50, postpaid \$1.70.

The Doo Klip Long-handle Grass Shear

Particularly desirable for use under bushes or shrubs, it also works perfectly along walks, foundations, and all difficult places. Operated from a standing or erect position. \$2.50, postpaid \$2.70.

Little Giant Adjustable Grass Hook

Cutlery steel blade, 12½ in. long. Blade adjustable to three positions. Steel shank shaped to raise handle. 65 cts., postpaid 75 cts.

English Grass Hook

Blade finest Sheffield steel riveted to heavy back. \$1, postpaid \$1.15.

German Blue Blade Grass Hook

Thin blade of high-tempered steel. 65 cts., postpaid 75 cts.

Austrian Grass Hook

A Grass Hook that will hold an edge. Used extensively by cemeteries, golf clubs, etc. 85 cts., postpaid 95 cts.

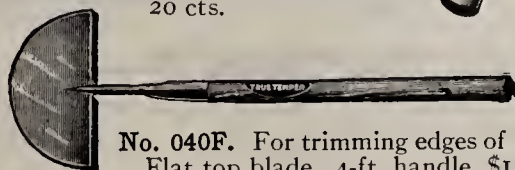
Simplicity Hedge Trimmer

No. 100. For trimming new growth of hedge and shrubbery. Cuts a large surface, both when opening and closing blades. Blades of Disston steel, 12 inches long, hardened and tempered. Bottom blade has 10 teeth, top blade has 9 teeth. \$3.50.



No. 100

No. 101. For pruning old or dead growth of shrubbery and hedge and for trimming new growth. Teeth are shaped and fluted. Bottom blade has 16 teeth, top blade 15 teeth. Length of blade 16 inches. \$4.50. Postage extra, 20 cts.

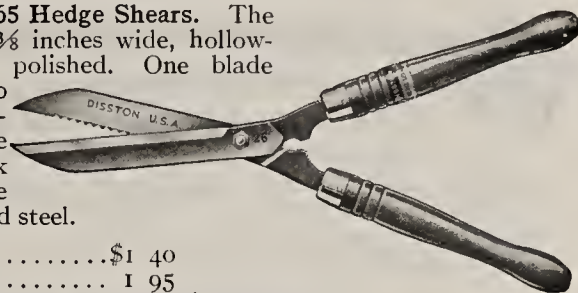


Turf Edger

No. 040F. For trimming edges of walks and driveways. Flat top blade. 4-ft. handle, \$1.25.

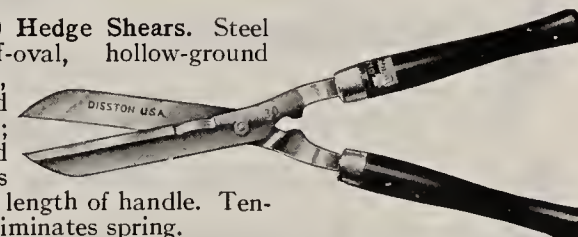
Disston No. 265 Hedge Shears. The blades are 1¾ inches wide, hollow-ground and polished. One blade serrated to prevent slipping. Blade and shank made from one piece of forged steel.

6-in. blade.....\$1 40
8-in. blade.....1 95
9-in. blade.....2 15 | 10-in. blade.....\$2 35
Postage 15 cts. extra.



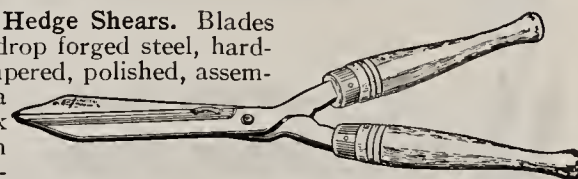
Disston No. 30 Hedge Shears. Steel blades, half-oval, hollow-ground full polished, hardened and tempered; hardwood handles; tangs extend entire length of handle. Tension device eliminates spring.

8-in. blade.....\$2 45
9-in. blade.....2 65 | 10-in. blade.....\$2 85
Postage 15 cts. extra.



Boker No. 201 Hedge Shears. Blades high carbon drop forged steel, hardened and tempered, polished, assembled with a spring lock washer; ash handles, securely fastened with steel rivets to the shanks. Copper plated, rustproof ferrules.

6-in. blade.....\$0 75 | 8-in. blade.....\$1 00
7-in. blade.....90
Postage 15 cts. extra.



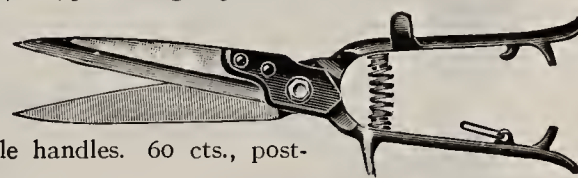
Heinisch Hedge Shears.

One serrated edge and one knife edge; forged steel handles; tempered steel blades; substantial ⅞-inch bolt with nut and lock washer. Gun metal finish; polished blades. 6½ in., \$2.25; 8 in., \$2.50; 9 in., \$2.75. Postage 15 cts. extra.



"Keen Clip"

Grass Shear No. 594. 6-in., full polished, hardened steel blades. Malleable handles. 60 cts., postpaid 70 cts.



No. 592. Same as No. 594, except has serrated edge. 80 cts., postpaid 90 cts.

Wiss Grass Shear No. 700. Operates with an easy up - and - down movement. \$1.25, postpaid \$1.40.



Grass and Sheep Shears

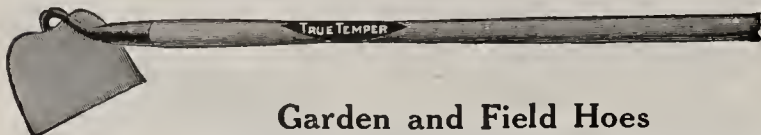
No. 200E. 5½ in. Full polished. 60 cts., postpaid 70 cts.

No. O57E. 6½ in. Finest quality cutlery steel American Shear. \$1.25, postpaid \$1.35.



No. 71. 6½ in. Best quality Sheffield steel English Shear. \$4.25, postpaid \$4.35.





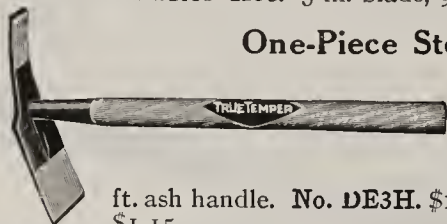
Garden and Field Hoes

No. G. 4½-ft. handle, steel socket, best quality. 6- and 6½-in. blade, \$1.15 each; 7 and 7½-in. blade, \$1.25 each.

No. R. 6 or 7-in. blade, 4-ft. handle, steel socket, light weight. 80 cts.

No. LY5 Ladies' Hoe. 5-in. blade, 90 cts.

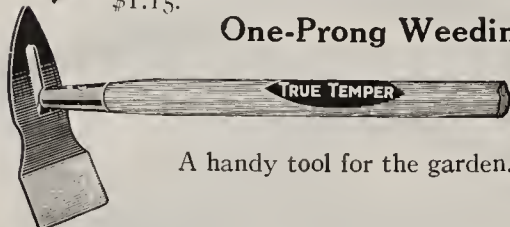
One-Piece Steel Mattock



Just the tool for heavy soil. Has two oil-tempered blades. Strong and light. 4½-

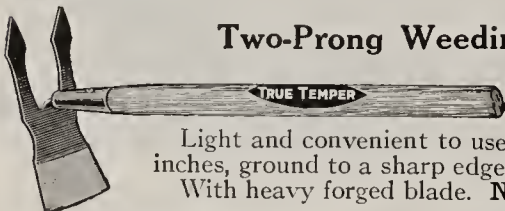
ft. ash handle. No. DE3H. \$1.30. No. DE3. Two-piece. \$1.15.

One-Prong Weeding Hoe



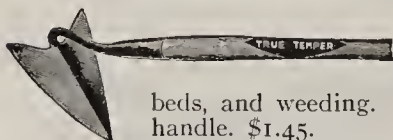
A handy tool for the garden. No. 1PF. 75 cts.

Two-Prong Weeding Hoe



Light and convenient to use. Width of blade 3⅝ inches, ground to a sharp edge. No. 2PF. 80 cts.

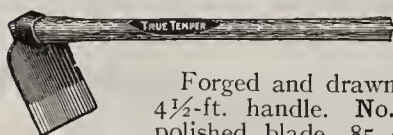
With heavy forged blade. No. 2PH. \$1.05.



Warren Hoe

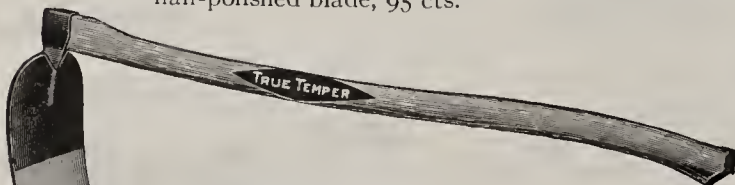
For transplanting, making and covering drills in flower-beds, and weeding. No. W. 7½-in. blade, 4½-ft. handle. \$1.45.

Baby Warren Hoes No. BW. 4½-in. tempered steel blade (measured corner to point), 6½-in. handle. 70 cts.



Square Eye Handled Hoe

Forged and drawn from one solid piece of steel. 4½-ft. handle. No. GE6-O. With 4½-in. half-polished blade, 85 cts. No. GE3-O. With 6-in. half-polished blade, 95 cts.



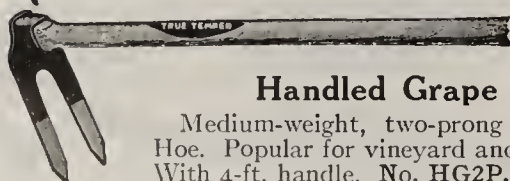
Italian Grape Hoe

Polished, hot-forged blades riveted to heavy malleable iron eye. Blade, 7 in. wide x 9 in. deep, 3½-ft. ash handle. A heavy tool for heavy work. No. IGH7. \$2.



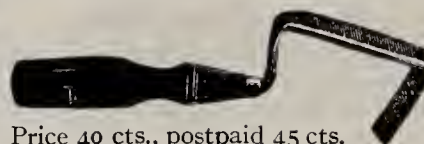
Potato Hook

Four diamond-back tines; goose neck. 4½-ft. handle. No. 4GND. \$1.25.



Handled Grape Eye Hoe

Medium-weight, two-prong Grape or Weeding Hoe. Popular for vineyard and small fruit-patches. With 4-ft. handle. No. HG2P. \$1.55.



Hazeltine Weeder

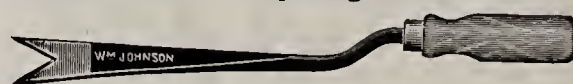
One of the best little implements ever used in a garden. Made from special high-grade steel.

Price 40 cts., postpaid 45 cts.

True Temper Weeder

Same style as Hazeltine Weeder except heavier material. No. BW1. 60 cts., postpaid 70 cts.

Asparagus Cutter



40 cts., postpaid 50 cts.

No. 2500. Used also as a weeder and dandelion digger.

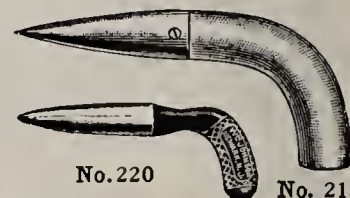
Dibbles

218. Wood handle, usual size.....\$0 75

219. Wood handle, small size.....70

2180. Wood handle, brass point.....1 00

220. All iron. Weight, 2 lbs. 75



No. 220

No. 218

Garden Trowels



No. 215



No. 211

211. Forged steel. 5-in. 70 cts., 6-in. 75 cts., 7-in. 80 cts.

217. Transplanting. 6-in. 20c., 7-in. 25 cts., 8-in. 30 cts.

215. English Pattern. 6-in. 25 cts.

No. 217

Postage, 10 cts. each, extra

Moe's Garden Tools



No. 80 Trowel

One-piece pressed steel. Finished in black baked enamel. Length of blade 6 inches; width 1¾ inches. Price 15 cts. each, postpaid 20 cts.



No. 81 Transplanting Trowel



No. 82 Weeder

One-piece pressed steel. Finished in black baked enamel. Is one of the most useful and handy garden tools made. Price 15 cts., postpaid 20 cts.

COMBINATION OFFER:

Set of three tools, No. 80 Trowel, No. 81 Trowel and No. 82 Weeder, 40 cts., postpaid 55 cts.



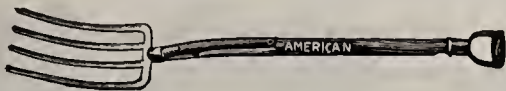
The Dandy Digger

Designed primarily for digging dandelions but makes a good tool for general lawn-weeding. Has rubber handle which eliminates callouses and blisters. Price 40 cts., postpaid 50 cts.



Little Digger Garden Mattock

Made of forged steel. Light in weight but sturdily built. Double-blade style, as illustrated, or Blade and Cutter style, each \$1.25.



SPADING FORKS.

- 4 tines, about 11 inches long, wood D-handle.....\$1 95
4 tines, about 11 inches long, steel D-handle..... 1 65
4 tines, about 7 inches long, Boy's, steel D-handle..... 1 05

SPADES, GARDEN.

- D-handle, solid plain back, 7½ x 12 inches..... 75
Long handle, solid plain back, 7½ x 12 inches..... 1 75
Drain, D-handle, solid plain back, 5½ x 16 inches..... 1 90



English Digging Fork. Fork, shank and straps are one solid piece of steel, making it the strongest Fork we know. Four square, sharp-pointed, polished tines. 11½ in. long, 8-in. spread, wood D-handle. No. ED4. \$2.85.



No. AFSD. Automobile Spade. Forged steel blade 5 x 8 in. Length over all, 24 in. 95 cts.

No. FSD. Floral Shovel. Similar to above. Length over all, 38 in. \$1.

Ensilage or Barn Forks.
Half polished oval tines,
end tines turned up.

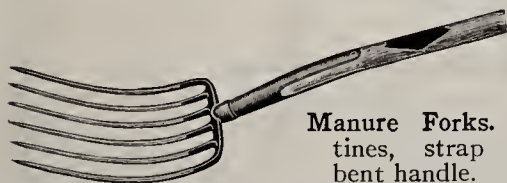


- No. 506. 6 15½-in. tines, steel D-handle.....\$2 60
No. 508. 8 16-in. tines, steel D-handle..... 2 70
No. 510. 10 16-in. tines, steel D-handle..... 3 20



Hay Forks. Oval tines, strap ferrules.

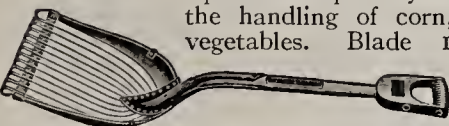
- No. 034B. 3-tine, 4-foot bent handle.....\$1 40
No. 034½B. 3-tine, 4½-foot bent handle..... 1 45
No. 035B. 3-tine, 5-foot bent handle..... 1 50
No. 035½B. 3-tine, 5½-foot bent handle..... 1 65
No. 036B. 3-tine, 6-foot bent handle..... 1 80



Manure Forks. Oval tines, strap ferrules, bent handle.

- No. 044. 4-tine, 4-foot bent handle.....\$1 65
No. 04D. 4-tine, iron D-handle..... 1 65
No. 064. 6-tine, 4-foot handle..... 2 10
No. 06D. 6-tine, iron D-handle..... 2 10

Champion Wire Scoop. The lightest and strongest Potato Scoop made. Specially recommended for the handling of corn, potatoes, and vegetables. Blade 13 in. x 16 in. D-handle. \$2.50.



Cutter Mattock

- Blade 2½, 3, or 3½ in. wide; Cutter 4¾ in. long. 85 cts.
Blade 3, 3½, or 4 in. wide; Cutter 5¼ in. long. 95 cts.



Scythes and Snaths



Little Giant Grass Scythe, with Dutch Heel. 30 to 34-in. \$2, postpaid \$2.15.

True Temper "World's Finest" Grass Scythe. With wide Dutch heel. Briar edge. 28 and 30-in. \$2.25, postpaid \$2.40.



Weed Scythe, Heavy Pattern. 26 to 28-in. \$2.10, postpaid \$2.25.

Bush Scythe, Heavy Pattern. 18 to 22-in. \$2.10, postpaid \$2.25.



Little Giant Weed Cutter. Cutlery steel blade 11 inches long, 2 inches wide; handle 28 inches long (not

illustrated). \$1, postpaid \$1.15.

English Riveted Back Scythe. 30 to 34-in. \$3.25, postpaid \$3.40.

German Blue Blade Scythe. Width of blade at heel, 4 in., length 30 in. Thin blade type; fully warranted. \$2, postpaid \$2.15.

German Blue Blade Scythe. With American heel. Can be used with patent snath. \$2, postpaid \$2.15.

Austrian Scythe. Same type as German Blue Blade. Straw-tempered finish. \$2.25, postpaid \$2.40.

Genuine Austrian Schwanen Sense Scythe. Straw-tempered finish with picture of two swans on blade. \$3, postpaid \$3.15.

Sharpening Outfit for German and Austrian Scythe. Consists of Hammer (without handle) and Anvil. Weight, 1 lb. \$1.25, postpaid \$1.35.

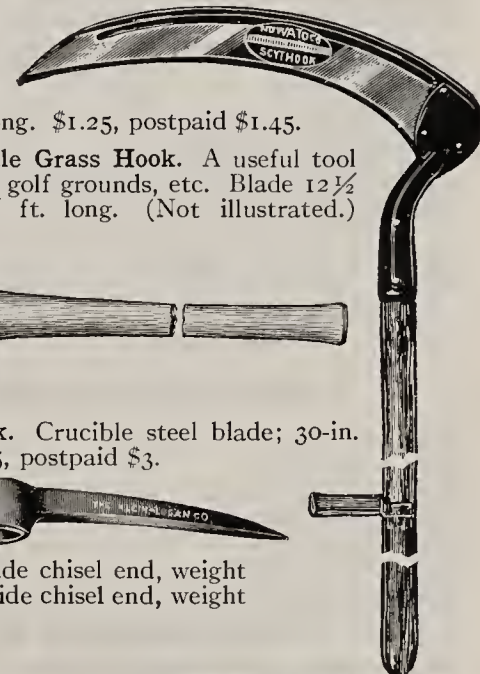
Patent Grass Snath No. 55. With loop bolt and nut. \$1.50, postpaid \$1.75.

Bush Snath No. 105. With loop bolt and nut. \$1.75, postpaid \$2.

Straight Snath, S3. For German and Austrian Scythes with ring and wooden wedges. \$1.50, postpaid \$1.70.

Nowatoco Scythook.

For cutting light bushes, weeds, and grass. Blade 18 in. long; handle 4½ ft. long. \$1.25, postpaid \$1.45.



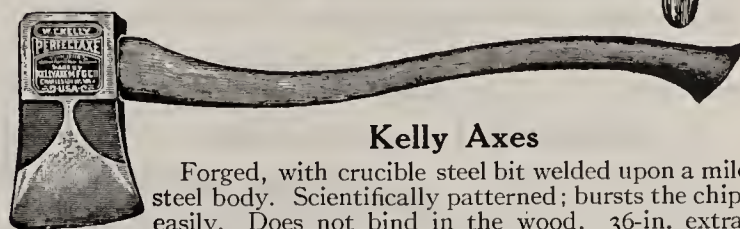
Little Giant Long-Handle Grass Hook. A useful tool for parks, cemeteries, golf grounds, etc. Blade 12½ in. long; handle 3½ ft. long. (Not illustrated.) \$1, postpaid \$1.10.



Little Giant Bush Hook. Crucible steel blade; 30-in. hickory handle. \$2.75, postpaid \$3.



Railroad Picks. 2 in. wide chisel end, weight 5 lbs., 85 cts. 2 in. wide chisel end, weight 6 lbs., 95 cts.



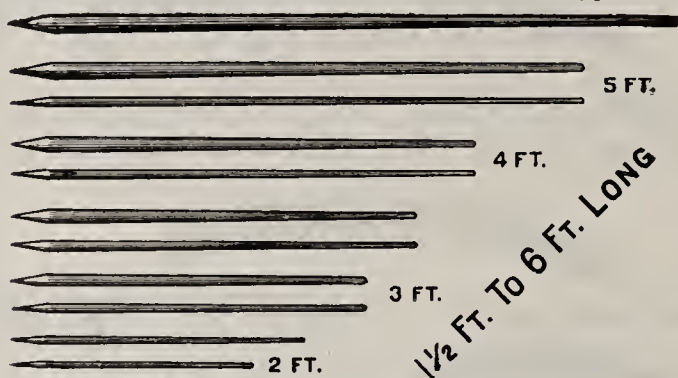
Kelly Axes

Forged, with crucible steel bit welded upon a mild steel body. Scientifically patterned; bursts the chips easily. Does not bind in the wood. 36-in. extra-quality hickory handle.

- Single Bit, 3½ or 4-lb. \$2; 4½ or 5-lb. \$2.10; 5½-lb. \$2.25.
Double Bit, 3½ or 4-lb. \$2.25; 4½ or 5-lb. \$2.40; 5½-lb. \$2.50.

Stakes

Wooden, Round, Tapering, painted green. Light Stakes are made from western white pine and the heavy from cypress.



	Doz.	100
1 1/2 ft. long, light weight.....	\$0 35	\$1 75
2 ft. long, light weight.....	50	3 25
3 ft. long, light weight.....	1 00	6 00
4 ft. long, light weight.....	1 40	8 75
3 ft. long, heavy weight.....	1 50	9 75
4 ft. long, heavy weight.....	1 85	12 75
5 ft. long, heavy weight.....	2 50	16 25
6 ft. long, heavy weight.....	3 00	20 00

Wooden, Round, Straight, painted green. Pointed at one end. Made of hardwood.

	Doz.	50	100
2 ft. long, 3/8-in. diam.....	\$0 40	\$1 40	\$2 50
3 ft. long, 3/8-in. diam.....	50	1 65	3 00
4 ft. long, 3/8-in. diam.....	1 40	5 25	10 00
5 ft. long, 3/8-in. diam.....	1 65	6 50	12 50
6 ft. long, 3/8-in. diam.....	1 90	7 75	15 00

The 3/8-in. diameter stakes are suitable for gladiolus supports and the 7/8-in. diameter stakes, for dahlias.

Hyacinth. Painted green. 12 in. long.....\$0 35 \$2 00
18 in. long.....45 2 50

Japanese Bamboo Canes. Dyed green. Uniform pencil thickness throughout. Just the thing for pot plants and plants that need just a light support.

	Doz.	50	100	1,000
2 ft. long.....	\$0 10	\$0 25	\$0 40	\$2 50
3 ft. long.....	15	35	50	3 75
4 ft. long.....	20	50	90	6 75

Heavy Bamboo Tonkin Stakes. These are of even diameter throughout, strong, and withstand weather conditions and the dampness of the earth on account of their natural outside polish. Make excellent supports for dahlias and plants of this type.

	Doz.	50	100
4 feet, 1/2 to 5/8-in. diam.....	\$0 60	\$2 00	\$3 00
5 feet, 5/8 to 3/4-in. diam.....	85	2 50	4 00
6 feet, 3/8 to 3/4-in. diam.....	1 00	2 75	4 50
8 feet, 5/8 to 3/4-in. diam.....	1 15	3 25	5 50

Garden or Pot Labels (Painted)

	100	500	1,000
4 in. x 5/8 in. wide.....	\$0 40	\$1 50	\$2 50
5 in. x 5/8 in. wide.....	45	1 65	2 75
6 in. x 5/8 in. wide.....	50	1 75	3 00
8 in. x 7/8 in. wide.....	1 00	3 75	6 25
10 in. x 7/8 in. wide.....	1 15	4 50	7 50
12 in. x 1 1/8 in. wide.....	1 60	6 50	11 00
3 1/2 in., copper-wired.....	60	2 00	3 25

Wire Hanging Baskets

Hand-made; enameled foliage-green.

	Each	Each
8-in. diam.....	\$0 25	12-in. diam.....\$0 45
10-in. diam.....	30	15-in. diam.....65

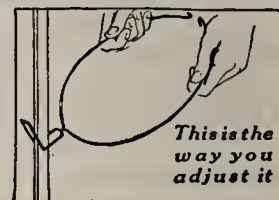
Henckels' Flower Scissors

Made with clamping shields on the blades which holds the stem as the flower is cut. Fully nickel plated. No. 3333. 6-inch, \$3.



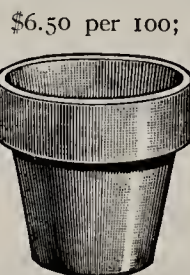
Adjusto Plant Supports

Asturdy, hard-wood stake seven-eighths inch square, 3, 4 or 5 feet long, with a strong wire support instantly adjustable to any height.



This is the way you adjust it

Saves space because it keeps your plants in the air and sun, and from the ground. Enables you to cultivate close to the plant. "Adjusto" supported tomatoes ripen to perfection. "Adjusto" supports bring out the full beauty of Dahlias, Chrysanthemums and all the slender, tall-growing varieties.



	Each	Doz.	100
3-ft.....	\$0 25	\$2 10	
4-ft.....	28	2 40	
5-ft.....	30	2 70	
6-ft.....	35	3 00	

For Potted Plants, etc., Stakes 1/4 in. square, wires 4 1/4 in. diameter. 1 1/2 ft., 10 cts. each, 90c. per doz., \$1.10 per doz., \$8 per 100.

	Each	Doz.	100
2 1/2 in.....	\$0 04	\$0 30	\$1 75
4 in.....	06	50	3 40
5 in.....	10	90	6 00
6 in.....	15	1 35	9 00
7 in.....	22	2 25	15 00
8 in.....	32	3 25	21 50
9 in.....	50	5 00	33 00
10 in.....	65	6 75	45 00
12 in.....	1 25	13 50	
Cemetery Vase.....	35	3 75	

Earthen Flower Pots

Standard Pots

Inside diam.	Each	Doz.	100
2 1/2 in.....	\$0 04	\$0 30	\$1 75
4 in.....	06	50	3 40
5 in.....	10	90	6 00
6 in.....	15	1 35	9 00
7 in.....	22	2 25	15 00
8 in.....	32	3 25	21 50
9 in.....	50	5 00	33 00
10 in.....	65	6 75	45 00
12 in.....	1 25	13 50	
Cemetery Vase.....	35	3 75	

Flower Pot Saucers

Inside diam.	Each	Doz.	100
4 in.....	\$0 04	\$0 40	\$2 50
5 in.....	06	50	3 40
6 in.....	08	75	5 00
7 in.....	15	1 15	7 50

Inside diam.	Each	Doz.	100
8 in.....	\$0 18	\$1 60	\$10 50
9 in.....	22	2 10	14 00
10 in.....	32	3 25	22 00
12 in.....	50	5 00	33 00

Azalea Pots

Inside diam.	Each	Doz.	100
6 in. x 4 3/4 in. deep.....	\$0 15	\$1 35	\$9 00
7 in. x 5 1/4 in. deep.....	22	2 25	15 00
8 in. x 5 3/4 in. deep.....	32	3 25	21 50
9 in. x 6 1/4 in. deep.....	50	5 00	33 00
10 in. x 6 3/4 in. deep.....	65	6 75	45 00

Low Pans

Inside diam.	Each	Doz.	100
5 in. x 3 1/4 in. deep.....	\$0 10	\$0 90	\$6 00
6 in. x 3 1/2 in. deep.....	15	1 35	9 00
7 in. x 3 3/4 in. deep.....	22	2 25	15 00
8 in. x 4 in. deep.....	32	3 25	22 00

Garden Jardinieres

	Each
8-in. diam. with saucer.....	\$1 50
10-in. diam. with saucer.....	2 50
12-in. diam. with saucer.....	3 50
14-in. diam. with saucer.....	5 00

The Timesaver Plant Support

Your Flower- and Vegetable-Garden's Best Friend. Placed and adjusted to height and to any size of loop almost instantly. For shrubbery, tomatoes, dahlias, peonies, roses, and most other vegetables and flowers.

Length	Doz.	Postpaid	Length	Doz.	Postpaid
2 1/2 ft.....	\$0 95	\$1 05	4 ft.....	\$2 20	\$2 35
3 ft.....	1 15	1 30	5 ft.....	2 75	2 95
3 1/2 ft.....	1 60	1 75	6 ft.....	3 00	3 25
3 1/2 ft. Special Peony support.....				2 10	2 25

Sweet Pea Trellis. Frame 5 by 5 feet over all.

	Each	Doz.	100
Made of galvanized steel. Green rope center.....		2 25	2 50

Natural Green Moss, in sheets. Bag, about 2 bushels, \$2.50



Patented Jan. 23, 1917

The small holes near each corner at the top of the box are for inserting small wires or chains for hanging the box in living-rooms, libraries, porches, etc. Made of Armco galvanized ingot iron, which is noted for its rust-resisting qualities and will last for many years. Leak-proof and rust-proof. No transplanting—you can move Savo boxes indoors or out and have beautiful flowers and plants the year round.

MADE OF HEAVY GALVANIZED STEEL AND FINISHED GREEN, ORCHID, COBALT BLUE, CHINESE RED, OLD IVORY, OR ALUMINUM

Model	Height	Width	Length	Each	Postpaid	
A	8 in.	9½ in.	23 in.	\$3 00	\$3 20	B, Fernery, 9½ in. wide, 29 in. long, 30½ in. high; dark green Each finish, with stand. \$10 00
B	8 in.	9½ in.	29 in.	3 50	3 70	E, Fernery, 30 in. high, 12 in. square, with stand. 6 00
C	8 in.	9½ in.	35 in.	4 00	4 25	G, Round Fernery, 12 in. in diameter, 31 in. high; dark green finish, with stand. 6 00
D	8 in.	9½ in.	41 in.	4 50	4 75	H, Fernery, 36 in. high, 29 in. long, with stand. 14 00
E	8 in.	12 in.	12 in.	2 50	2 65	
F	12 in.	12 in.	12 in.	3 00	3 25	

These are outside measurements, including the ¼-inch roll rim. Special sizes made to order when required. Ask for circular

Proper IrrigationThe Perfecto Flower BoxProper Ventilation

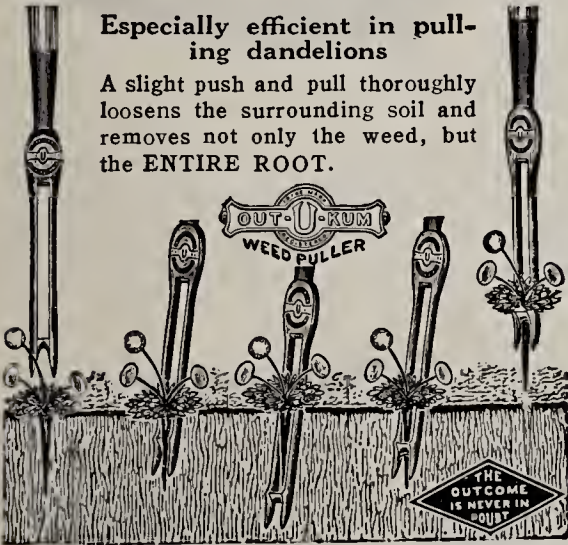
The Perfecto Flower Box embodies correct, approved, scientific principles for raising luxuriant plants and flowers indoors or outside. Patented system with water entrance at both ends feeds water properly at roots of plants and circulates air beneath soil; keeps it from souring. Maximum beauty in the home or on the porch and rapid growth of plants made certain in winter or summer.



Furnished in the following sizes enameled in Green finish or Old Ivory finish. Specify color desired in ordering.

	Each	Postpaid		Each	Postpaid
20 inches long, 6 in. deep, 7 in. wide.....	\$1 00	\$1 15	38 inches long, 6 in. deep, 7 in. wide.....	\$2 00	\$2 25
26 inches long, 6 in. deep, 7 in. wide.....	1 25	1 40	44 inches long, 6 in. deep, 7 in. wide.....	2 50	2 75
32 inches long, 6 in. deep, 7 in. wide.....	1 50	1 70			

The Out-U-Kum Weed Puller



Especially efficient in pulling dandelions
A slight push and pull thoroughly loosens the surrounding soil and removes not only the weed, but the ENTIRE ROOT.

It differs from all other Weed Pullers, most of which either cut the root or grip the weed above the ground, often breaking it off above the root. The Out-U-Kum Weeder is not a novelty, but a practical working tool. The illustration shows how easy it is to use, also how the weed is entirely removed. Price 65 cts., postpaid 75 cts.

Cedar Plant Tub



The Richmond Style Tree Tubs are made of seasoned, selected Virginia white cedar, are bound with electric welded wire hoops (galvanized), three hoops to each, except the No. 1 size which has two. The Richmond style fills a long-felt want for a cheap type of Plant Tub and is being used by many large florists in place of earthen pots. These Plant Tubs are nicely painted with the best oil paints—a handsome green color inside and out. The tops of the staves are slightly beveled, which gives them a neat, trim finish. Regularly furnished with no handles.

Size	Inside top diam.	Inside bot. diam.	Inside depth	Each
No. 1	6 in.	5 in.	6 in.	\$0 60
No. 3	8 in.	6 in.	8 in.	65
No. 5	10 in.	7½ in.	9 in.	80
No. 7	12 in.	9 in.	11 in.	1 15
No. 9	14 in.	11 in.	13 in.	1 70
No. 11	16 in.	12½ in.	15 in.	2 10
No. 13	18 in.	14½ in.	17 in.	3 00

If stamped steel handles are desired, add 25 cents per tub, extra

Little Giant Self-Setting Mole Trap

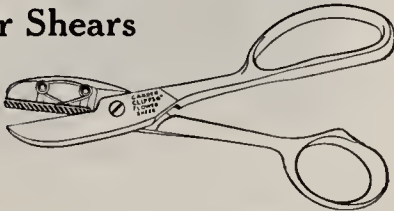
A durable Trap made of steel and heavily tinned. Easily set and a sure method of eliminating this pest. 16½ inches in height over all, 4⅝ inches wide, made of ⅝-inch band steel. Price \$1, postpaid \$1.20.

Mo-Lo

A preparation for the extermination of moles. The smell of MO-LO attracts the moles, they eat it and die underground. Poisonous. Pkt. (1 doz. tablets) 25 cts., doz. pkgs. \$2.75.

Eversharp Flower Shears

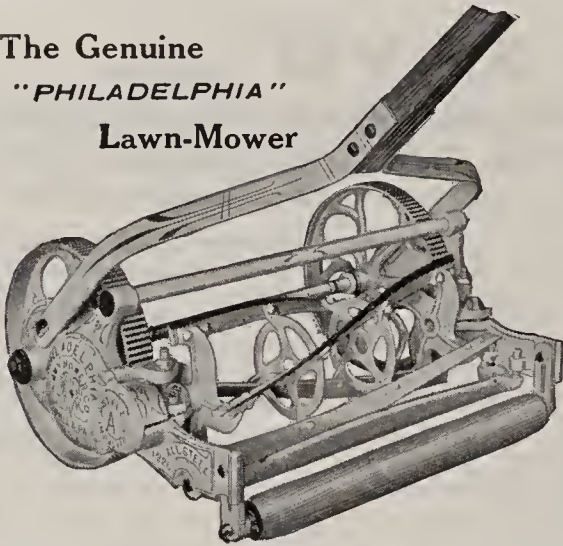
Just the Shears for cutting and gathering flowers. Snips and holds in one operation. No. 1248. Price 50 cts., postpaid 60 cts.



Garden Flowers in Color

A new book just published for garden lovers. See page 191.

The Genuine "PHILADELPHIA" Lawn-Mower



Four blades, 10-inch wheel, 6½-inch cylinder, train of three gears, double ratchet.

Style "A" All Steel. This is the lightest draft Lawn-Mower made, and, being made entirely of steel, it is by far the most durable. 15-in., \$22; 17-in., \$25; 19-in., \$28; 21-in., \$31.

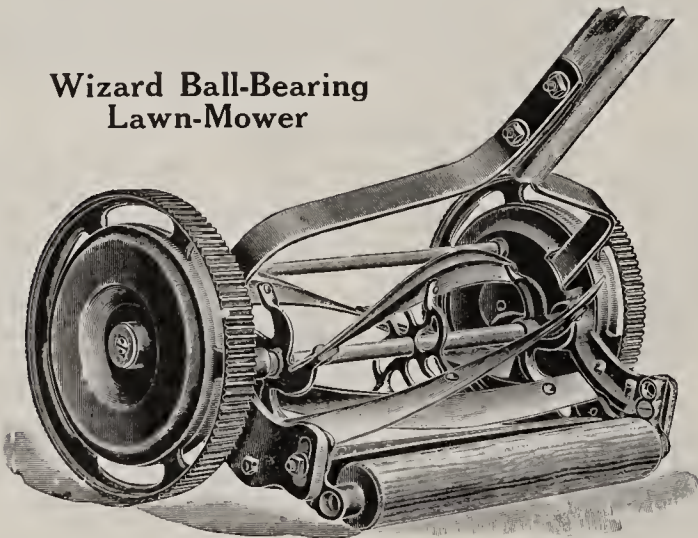
Famous Ohio Reversible Lawn-Mower

*It cuts when you push—
It cuts when you pull*

The design of this Mower is a departure from the conventional type of Lawn-Mower. The reel is hung in front of center instead of rear, which permits of close cutting to any object and saves hours of trimming. Handle can be reversed, and in this position it is especially adapted for terrace cutting or for trimming under bushes without injury to foliage. Can be adjusted in fraction of a second to cut grass any desired length. Has 5 blades. 16-in., \$17; 18-in., \$19.50.



Wizard Ball-Bearing Lawn-Mower

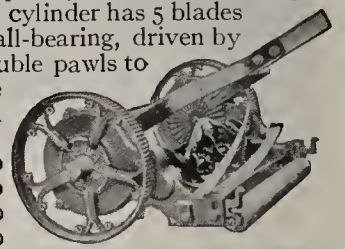


A high-grade Lawn-Mower at a low price. It is equipped with 9-inch drive wheels, four tempered tool-steel blades with crucible tool-steel underknife, hardened and tempered and patent cone adjustment. 14-in., \$6.75; 16-in., \$7; 18-in., \$7.25.

Pennsylvania Junior Lawn-Mower

This is the standard Mower for general trimming, and probably is used on more private estates, parks, cemeteries, and golf-courses than any other Mower. The cylinder has 5 blades 6 inches in diameter; self-aligning ball-bearing, driven by a train of 3 gears on both sides; double pawls to prevent slipping. It will cut the toughest grass and give a smooth finish.

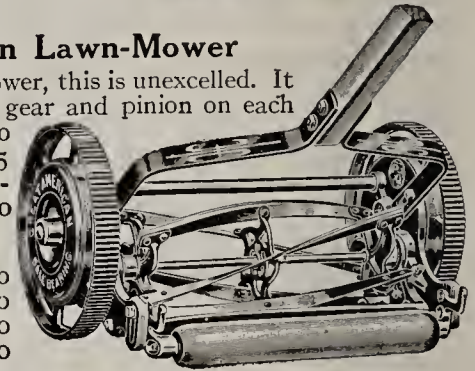
	Weight	Price
15-inch.....	41 lbs.	\$20 00
17-inch.....	43 lbs.	22 00
19-inch.....	45 lbs.	25 00
21-inch.....	48 lbs.	28 00



Great American Lawn-Mower

As a general utility Mower, this is unexcelled. It is driven by an internal gear and pinion on each side, making it easy to push. The cylinder has 5 blades; self-aligning ball-bearings. Wheels are 10 inches in diameter.

	Weight	Price
15-inch...38 lbs.	\$15 00	
17-inch...40 lbs.	17 00	
19-inch...42 lbs.	19 00	
21-inch...45 lbs.	21 00	

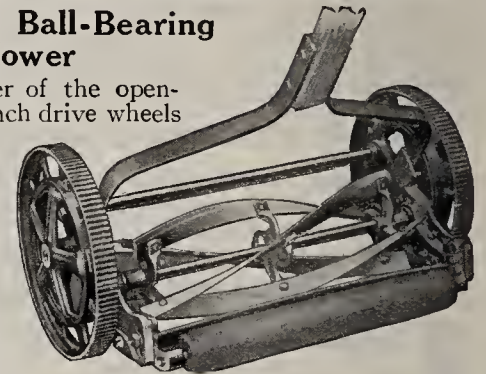


The Pittsburgher Ball-Bearing Lawn-Mower

A ball-bearing Mower of the open-wheel design. Has 10-inch drive wheels and four alloy steel revolving blades. A light-weight, easy-running Mower, capable of good work and built of good materials by experienced workmen.

Lipped, self-sharpening underknife of high carbon steel, hardened and carefully tempered.

14-in., \$7.25; 16-in., \$7.50; 18-in., \$7.75.



Genuine "PHILADELPHIA" Lawn-Trimmer

An efficient and complete Lawn-Trimmer, built for durability and service. Positively cuts smoothly to ¼ inch of wall, post, tree, or fence. Used throughout the world in cemeteries, parks, and large estates. Vanadium crucible steel blades. Use of shears or sickle unnecessary. Cylinder with 4 blades; driving wheel, 8 inches; single pinion; diameter of cylinder, 5 ⅜ inches; 6-inch cut. (Not illustrated.) \$8.50.

Easy-Emptying Grass-Catchers

Galvanized sheet-steel bottom, heavy-weight duck sides. Sides are firmly fastened to the bottom by two folds of steel.

Furnished with convenient, well-balanced, easy-emptying handle. Projections on the bottom prevent grass from slipping forward while mowing.

No. 10G. Depth 19 in., fits 12 to 18-in. Mower. \$1 25
No. 12G. Depth 21 in., fits 16 to 22-in. Mower. 1 65

We also offer a Catcher of medium-weight duck sides, but it hasn't the non-slipping bottom. (Not illustrated.)

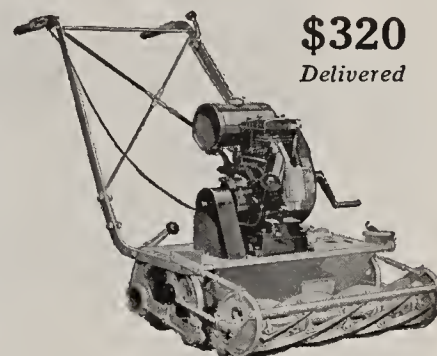
No. 16G. Depth 16 in., fits 12 to 17-in. Mower.....\$0 80
No. 18G. Depth 16 in., fits 16 to 20-in. Mower.....1 00



No. 10G
and No. 12G

The Lawn Master *Moto-Mower*

The Lawn Master is a roller-type Mower particularly recommended for estates with fine lawns which require trimming of turf along driveways. It is also ideal for mowing garden paths and trimming around shrubbery and flower-beds, as the Mower may be operated as a trimmer with the cutting-reel extended over edges. Separate clutches for traction and reel give the operator full control of the traction roller, cutting unit, or motor speed. Twin rollers with automotive gear differential permits perfect turning without injury to lawn. Cutting unit is easily and quickly detached without disturbing any other part of the Mower. Four-cycle "L" head type motor has ample power. Weight distributed over greater ground-contact than any other roller Mower of similar size.



\$320
Delivered

25-in. cut



\$300
Delivered

27-in. cut

The Super-Detroit *Moto-Mower*

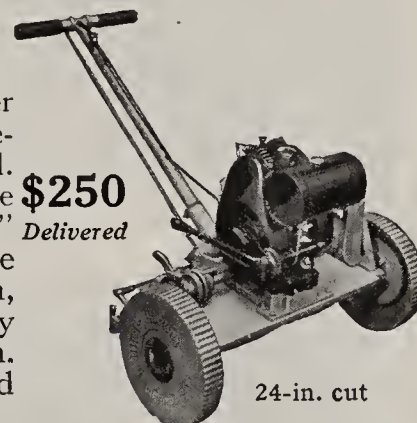
Possessing such sturdy construction and perfect balance, the Super-Detroit cuts every kind of grass efficiently and with least exertion to the operator. Strong and powerful though it is, twist-of-the-wrist guiding makes the Super-Detroit (27-inch cut) as responsive to the touch as a light hand mower. Consequently, the operator can now mow 4 to 5 acres per day with it every day of the season without experiencing fatigue.

Cutting close around trees and flower-beds is also made easy by this feature, which allows short turns without gouging the turf and eliminates hand-trimming. The new two-horsepower motor develops ample power to meet any emergency without danger of overheating.

The Standard *Moto-Mower*

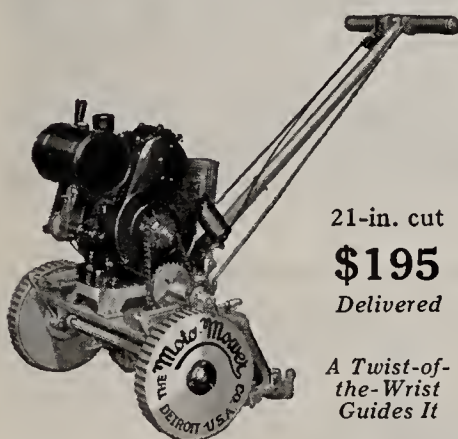
This Mower is in every way a reproduction of the Super-Detroit Mower, other than its width, which is 24 inches, and its motor is somewhat smaller but of adequate horsepower. The wheels are pressed steel and may be had with rubber tread.

The driving wheel clutches are extra large and are lined with automobile type clutch linings that insure a slow, gentle grip to prevent the clutch from "grabbing" which would cause the driving wheels to suddenly start, with consequent damage to the lawn. Every inch a Moto-Mower, which means rugged construction, ample power, ease of operation, and twist-of-the-wrist guiding. Particularly well adapted for cemetery use and will give a good account of itself on any lawn. Cutting capacity, 3 to 4 acres per day. An improved weed-topper can be had for this model.



\$250
Delivered

24-in. cut



21-in. cut
\$195
Delivered

A Twist-of-the-Wrist
Guides It

The City *Moto-Mower*

For smaller lawns, the City Model Moto-Mower, 21-inch cut, has proved a splendid machine. It will efficiently and easily mow 2½ to 3 acres of grass per day. Possessing twist-of-the-wrist guiding, automatic engine control, and the finest construction and materials, the City Model is just as valuable and efficient a machine as the larger Moto-Mowers. A hand-lever makes starting easy. A rugged motor and simplified design guarantee years of thorough, economical operation for the City Model owner.

The public esteem that the City Model Moto-Mower has won through its enviable record of enduring service comes from the simple, sturdy design and high-quality construction of the unit.

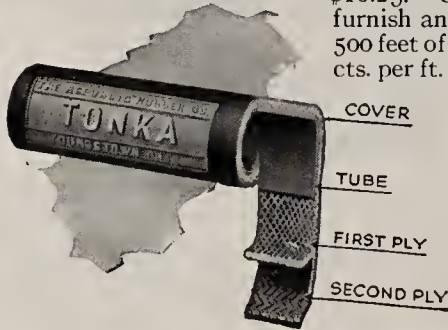
The Junior *Moto-Mower*

The Junior model is a light-weight machine for the home-owner of average means. It will cut 2 acres of lawn on 1 gallon of gasoline. 18-in. cut. \$125.

Complete catalogue more fully describing all models of the *Moto-Mower* on request or demonstration on your own lawn gladly arranged

Garden and Spray Hose

Fairway. Constructed of special Hose-cords chosen for flexibility and toughness, these cords being braided with scientific and mathematical precision to produce a light, strong, flexible body. Built to withstand hard usage and will give years of good service with ordinary care. Cover and tube made of the highest quality material. Money cannot buy a better Garden Hose. $\frac{5}{8}$ -in. diam., 25-ft. length, \$4.75; 50-ft. length, \$9.25. Couplings included. $\frac{3}{4}$ -in. diam., 25-ft. length, \$5.25; 50-ft. length, \$10.25. Couplings included. Can furnish any continuous length up to 500 feet of either size. $\frac{5}{8}$ -in. diam., 18 cts. per ft.; $\frac{3}{4}$ -in. diam., 20 cts. per ft.



Tonka. A high-quality, 2-ply, molded and braided Garden Hose. It is a well-known Hose, and is "built to stay alive." We can highly recommend it. $\frac{5}{8}$ -in. diam., 25-ft. length, \$3.75; 50-ft. length, \$7.25. Couplings included.

Relief. Medium-weight, 2-ply, molded and braided Garden Hose. The construction and cover-stock are identical with that of Tonka, the difference being in the weight of cord used for the body. $\frac{5}{8}$ -in. diam., 25-ft. length, \$3.30; 50-ft. length, \$6.35. Couplings included.



Relief High-Pressure Spray Hose. Made specially for spraying materials. Best quality, 3-braid construction. Will stand 500 pounds working pressure. A strictly first-class Hose for power sprayers. Any desired length. $\frac{1}{2}$ -in. diam., per ft. 27 cts.

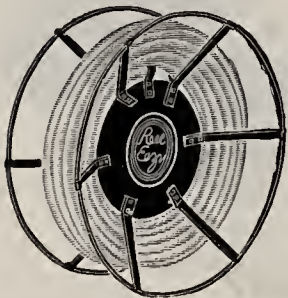
Republic Spray Hose. For use with Hand Compressed-Air Sprayers, single-braid construction. Any desired length. $\frac{3}{8}$ -in. diam., per ft. 20 cts.

Reeleezy Hose Reel

Put the socket of a hose in the ring and roll along. The hose comes right with you. One motion. Just roll. When you get to the end of the line, pick it up, hang it up, or stand it in the corner out of the way.

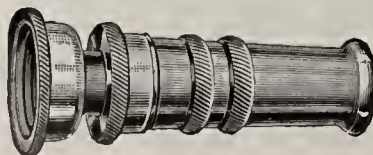
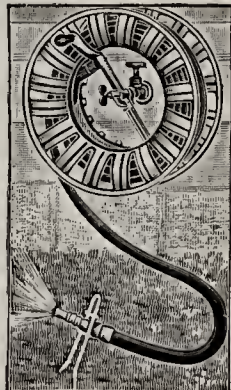
Holds 75 feet of $\frac{3}{4}$ -inch, or 100 feet of $\frac{5}{8}$ -inch, garden hose.

It will stand more hard knocks than it will ever get in ordinary service. Price \$2, postpaid \$2.20.



Detachable Hose Reel

A most convenient and practical device. The axle of the Reel fits into a special faucet which is permanently attached to the water-pipe. The Reel revolves on the faucet, allowing the hose to be pulled out as desired in any direction while the water is running. When the sprinkling is finished, the hose can be reeled up readily without any handling. Diameter, 20 inches; width, 8 $\frac{1}{2}$ inches; holds 100 feet of $\frac{5}{8}$ -inch hose. Price, including faucet \$4.50, postpaid \$4.75. Extra Faucets, each \$1.35.



Peoria Nozzle

Can be adjusted from a fine spray to a strong, solid stream. It is made of heavy cast brass and every one is guaranteed. Price 50 cts., postpaid 60 cts.

Flaring Rose Sprinkler

Ejects a sheet of tiny jets that are just like gentle rain. Especially adapted for sprinkling flowers, seed-beds, and new-made grass-plots; also for use in greenhouses. Made entirely of brass. Price 60 cts., postpaid 70 cts.



Crown Fountain Sprinkler

Four series of clean-cut holes give perfect distribution and throw far out and to a great height a complete circle of beautiful, mist-like spray. Made of brass. Price 75 cts., postpaid 85 cts.

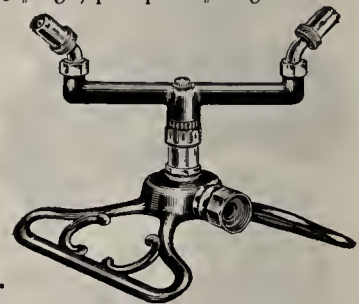


Crescent Fountain Sprinkler

Same as Crown Sprinkler, except throws the water in a half circle. Price 70 cts., postpaid 80 cts.

Anaconda Sprinkler

Built strong, with non-tipping, malleable base. Brass arms 5 $\frac{1}{2}$ inches long. Will sprinkle a 40-foot circular area with 30-pound pressure. Price \$1.50, postpaid \$1.65.



Parkside Lawn Sprinkler

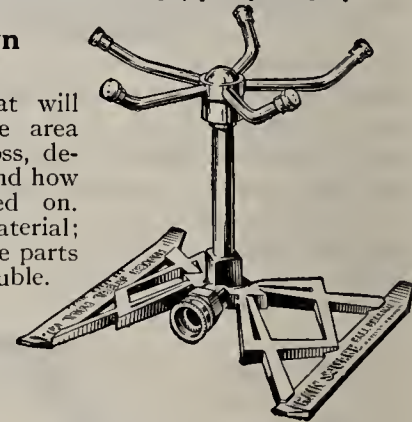
Can be quickly changed from a revolving Sprinkler to a stationary Sprinkler. Nozzles can be adjusted for a fine mist or coarse stream, and to cover a large circle or small area. Will operate on high or low pressure. Price \$2.50, postpaid \$2.70.

Rain Square Lawn Sprinkler

A revolving Sprinkler that will completely cover a square area measuring 3 to 36 feet across, depending on water-pressure and how much the faucet is turned on. Well made of high-grade material; no valves, springs, or delicate parts to wear out, rust, or give trouble.

Junior Model. 3 arms. \$2.45, postpaid \$2.60.

Senior Model. 5 arms. \$3.75, postpaid \$3.95.

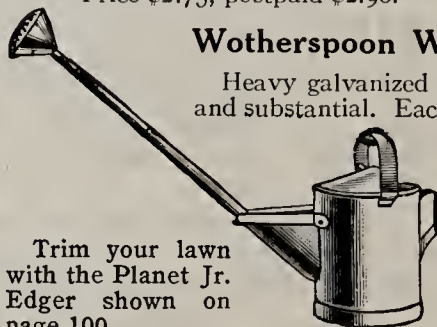


Greenhouse Spray

Used principally for watering in the greenhouse and hotbeds. Made of cast brass with $\frac{3}{4}$ -inch hose thread. Equipped with two brass plates, one fine and one coarse. Diameter of face 4 inches. Price \$2.75, postpaid \$2.90.

Wotherspoon Watering Pots

Heavy galvanized iron, reinforced; well made and substantial. Each pot has a long spout, with one fine and one coarse rose. Will outlast two or three ordinary pots.

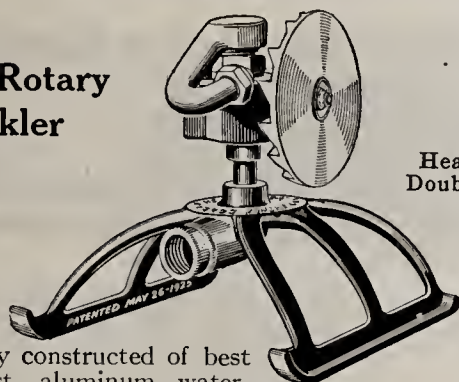


Round Pattern.

8-quart. \$5 25
10-quart. 5 75
12-quart. 6 25

Trim your lawn with the Planet Jr. Edger shown on page 100.

Double Rotary Sprinkler



Heavy-Duty
Double Rotary

Scientifically constructed of best material; cast aluminum water-wheel; bronze gears that run in a bath of oil; adjustable nozzle, sprinkles a circular area of from 15 to 80 feet in diameter. Will not puddle or wash soil. Water-pressure causes the wheel to revolve, cutting the water into rain-like drops. Will give years of wear. Ideal for homes, golf-courses, parks, gardens, green-houses, and large estates.

Heavy-Duty Model. \$12.50 postpaid.

Junior Model. Is built on much the same principle as the Heavy-Duty Model, but is designed especially for the home owner. Can be used as a stationary or revolving Sprinkler. \$7.50 postpaid.

The "Lark" Sprinkler

The "Lark" sprinkles evenly a circular area from 60 to 150 feet in diameter, depending upon pressure and size of nozzle used. The far-throwing main stream revolves slowly and may be broken into coarse or fine drops as desired. The whirling Rotor gives even distribution in the center. The roller base prevents damage to greens and allows changing position without shutting off the water. Length of roller, 18 inches. With each Sprinkler one $\frac{3}{8}$ -inch and one $\frac{1}{4}$ -inch nozzle are furnished. Fitted with 1-inch and $\frac{3}{4}$ -inch hose-connection. Price \$13.

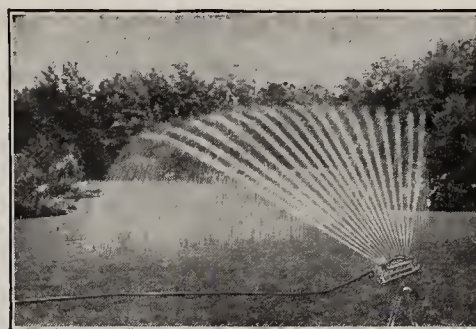


For Golf Greens
and Fairways,
Parks and Large
Estates



The "Ready Rainer"

Here is the solution of your watering problem for garden, lawn, and borders—a scientific irrigation line that you can move in a jiffy wherever you want it. Made of $\frac{3}{4}$ -inch galvanized pipe, fitted at 2-foot intervals with the famous Skinner System Silver Stream Nozzles. Can be attached to your hose and at ordinary city pressure covers a strip 50 by 18 feet. Made in two 9-foot sections, connected by a patented coupling which you can put together with your hands. Furnished complete and ready to erect. Three pointed iron rods support the line—push them into the ground, attach the hose, and turn on the water. With each line we furnish a set of special nozzles, which will break the water into a very fine spray. The fine spray nozzles in the line cover a strip 30 feet wide—15 feet on either side. Price complete \$11.

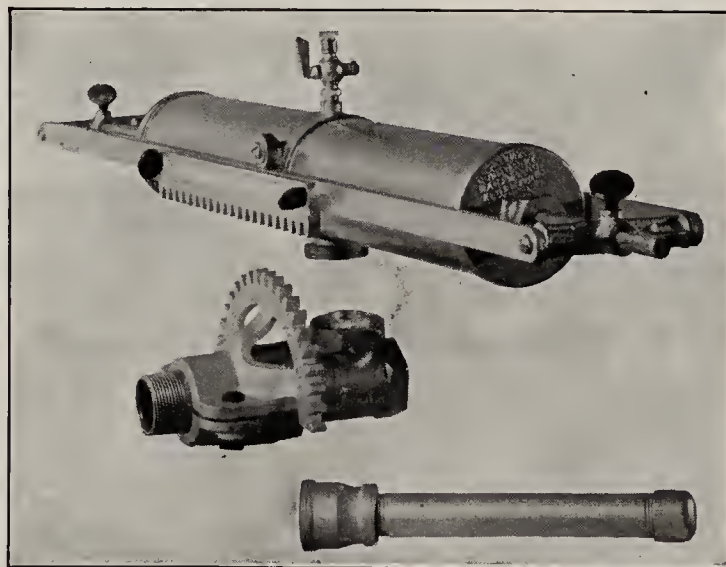


The Waterfan Lawn Sprinkler

A portable, automatic, oscillating lawn and garden Sprinkler. Operated by a strongly built turbine motor. Covers an area 40 by 45 feet. Works best on 25-pound water-pressure, but will work on higher or lower pressure. Price \$15, postpaid \$15.25.

White Showers Rainbow Sprinkler

The Rainbow Sprinkler is so designed that it sprinkles in a square instead of a circle—a great advantage, as it does away entirely with the necessity of finishing the watering with a hose. The Rainbow has 17 nozzles, mounted on an oscillator. Its sweep is so wide that it waters an area as large as 50 feet square, but it can quickly be adjusted for smaller areas and also for watering narrow strips and borders. Mounted on wheels—easy to move. A high-grade, durably built Sprinkler that will give years of service with no other attention than oiling once a year. Weight 25 lbs. Price \$40.



White Showers Automatic Irrigation

Above illustrates assembly of Automatic Oscillator. We handle a complete line of White Showers Automatic Irrigation and can promptly take care of your needs, whether for new installation or repair and improvement of any equipment you may already have. We will gladly help you in every way possible if you will but advise us about your plans or requirements.

The Monitor Hand-Cart



In the Monitor Hand-Cart we offer a strong and durable Cart made of selected materials. On account of its design, correct balance has been secured without sacrificing strength. The frame of body is made

of carbon steel, with first-quality basswood box inside.

No. 333. Drop End Board. Size, inside of body, 39 x 24 in.; depth, 9½ in.; wheels, 26-in. side, 14-in. front. Capacity, 350 lbs. Price, with 3 Steel Wheels, \$21; with Wood Wheels, \$25.

No. 53. Drop End Board. Size, inside of body, 40 x 26 in.; depth, 9½ in.; wheels, 30-in. side, 18-in. front. Capacity, 400 lbs. Price, with 3 Steel Wheels, \$22.50; with Wood Wheels, \$26.50.

Steel Tray Barrows



No. 20. Home Barrow. An exceptional Barrow for light work and general use around the home and garden. Tray of one-piece steel. Channel steel legs. Steel wheel 15½ in. diam. Capacity, 2½ cu. ft. Weight, 45 lbs. Price \$4.75.

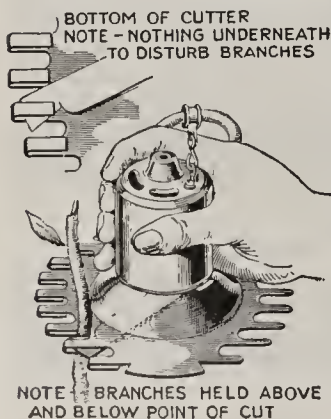


No. 15A. Adapted to cement or construction work or hauling manure. Designed with round front tray, so that materials will dump and clean easily. Hardwood handles, steel tray, and steel legs. Steel wheel, 15½ in. diam. A substantial Barrow that will stand a lot of hard usage. Weight, 65 lbs. Capacity, 3½ cu. ft. Price \$7.

No. 17B. (Not illustrated.) Similar to No. 15A in construction, but tray is made straight across at front instead of round. Capacity, 3½ cu. ft. Weight, 65 lbs. Price \$7.

No. 18. (Not illustrated.) Same construction as No. 17B, but larger. Capacity, 4½ cu. ft. Weight, 70 lbs. Price \$8.25.

O. K. Electric Hedge Trimmer



This Trimmer will cut any kind of hedge. It can be used with one hand, there are no parts to get out of order, and the price is within the reach of all. You can make a smooth even cut on top and sides, round the corners, and bevel the edges. Makes hedge-trimming a real pleasure.

No. 1. For estates, parks, and custom work. Price \$15.

No. 2. For use on the average amount of hedge. Price \$8.85. 75-ft. Extension Cord, complete with Switch and Plug, \$2.

Both Trimmers are alike in appearance but No. 1 has heavier motor than No. 2.

Pittsburgh Garden Barrows



These Barrows are made of thoroughly seasoned wood, have double frames, firmly bolted together and iron braced. They are neatly finished and very strong.

No. 1. Large. Body, 30 x 24 in.; sideboards, 12 x 30 in.; wood wheel, 1¾ x 22 in. Weight, 65 lbs. Price \$8.50.

No. 2. Medium. Body, 28 x 20 in.; sideboards, 12 x 27 in.; wood wheel, 1¾ x 20 in. Weight, 50 lbs. Price \$7.

No. 5. A high-grade, well-made Barrow at a low price. Will give good service for a long time. Body, 26 in. long, 19 in. wide front, 23 in. wide rear; sideboards, 12 in. high; handles, 56 in. long. Steel wheel. Weight, 50 lbs. Price \$5.45.

Simplex Green Weatherproof Plant Labels

Rose - Los Angeles

Used for identifying roses, dahlias, and other plants. Copper wired. Steel Stylus for marking free with 100 or more labels.

	Doz.	100		Doz.	100
No. 31. 3 x ½ in.	\$0 40	\$2 50	No. 32. 4 x ¾ in.	\$0 60	\$4 00
No. 33. 5 x 1 in.	85	5 50	Steel Stylus, 10 cts. each.		

Simplex Weatherproof Garden Labels

White celluloid cards and genuine mica covers, with stakes 24 inches long.

	Each		Each
No. 10. 2¾ x 1½ in.	\$0 25	No. 11. 3 x 2 in.	\$0 30

Little Wonder Hedge Trimmer



Top Cutting

Makes hedge-cutting a positive pleasure. Trims every variety of hedge grown.

Accomplishes as much in one hour in the cool of the day as can be done in ten hours with hand shears. Guaranteed to cut from five to ten times faster than hand-shears method and to do better work—more even.

Sturdily built—simple in construction.

Weight of machine from ten to sixteen pounds, according to size.

Will trim any shape desired, square, round or pivot.

Ask for special circular.



Electric-Driven Trimmer

	Electric	Hand-driven
27-inch Hedge Trimmer.....	\$55 00	
30-inch Hedge Trimmer.....		\$25 00
36-inch Hedge Trimmer.....	95 00	
40-inch Hedge Trimmer.....		27 50
60-inch Hedge Trimmer.....	100 00	35 00
		Each
Lawn Clipper Attachment for Hedge Trimmers.....	\$18 00	
Side-Cutting Carriage for Hedge Trimmers.....	4 50	
30-inch Lawn Weed Clipper, complete.....	35 00	
40-inch Lawn Weed Clipper, complete.....	40 00	

ARMSTRONG STANDARD SPRAY PUMP



Armstrong Standard Pump with Knapsack and short extension attachments

The Armstrong Standard Spray Pump is ideal for spraying liquid insecticides of all kinds, for whitewashing poultry-houses and cattle-barns, and spraying disinfectants.

By different arrangements of the several nozzles regularly supplied, sprays of varying fineness—from a mist to a straight stream that carries 60 feet—are produced.

For bucket use, a short length of hose is supplied. To use it with barrel or tank for a larger orchard, a length of hose up to 25 to 30 feet is desirable.

For spraying young or scattered trees or truck crops, such as potatoes, the knapsack and short curved extension are used with the Pump.

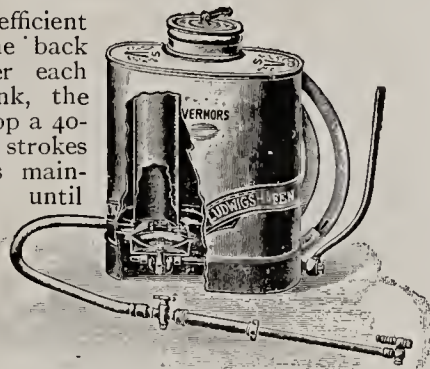
The Standard is made entirely of brass; no leather packings; no iron casting to rust or decay; nothing to get out of order.

With 3½-foot hose and full set of three nozzles.	\$4 50	\$4 75
Galvanized knapsack, capacity 5 gallons.	5 00	5 25
Curved extension, 19 inches long.	75	85

Platz Vermors Brass Sprayer

COMPACT—DURABLE—EFFICIENT

A compact and very efficient knapsack outfit, fitting the back snugly with a strap over each shoulder. After filling tank, the diaphragm pump will develop a 40-pound pressure with a dozen strokes of the pump-lever, and is maintained with little effort until emptied. The pressure chamber is made from a solid piece of brass. The nozzle is adjustable with a cleaner attachment, and is equipped with fine, medium, and coarse spray caps, and a nozzle capable of throwing a straight steam for a distance of 40 feet. The diaphragm and two check-valves, the only working parts of the pump, are accessible, easy to replace, and inexpensive. Having no plunger-pump, it has no plunger troubles. Capacity approximately 4 gallons. Weight 16 pounds. Price \$20, postpaid \$20.40.



Myers Power Spray Guns

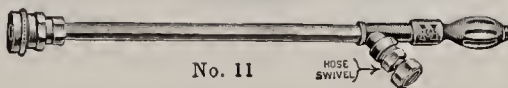
Designed for use with any power spray pump. Fitted for ¾-inch hose coupling and ¼-inch pipe.

Myers Triple and Quadruple Power Spray Guns produce a fine fog spray and assure complete coverage of both sides of all leaves and blossoms, using the minimum amount of spray mixture. The rod is galvanized steel tubing in three sections, enabling the user to have the benefit of three different length Guns. A very efficient Gun that will save time and labor.

No. 30 Triple Spray Gun. Complete \$8, postpaid \$8.25.

No. 40 Quadruple Spray Gun. Complete \$9, postpaid \$9.30.

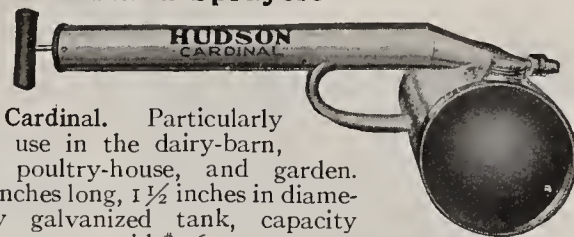
No. 11. Will discharge a long-distance spray by means of which the top of the highest fruit tree can be reached, or it can be instantly changed to a very broad spray or shut off entirely. Hose swivel removes all twists in the hose. Price \$7.50, postpaid \$7.75.



No. 11

HOSE SWIVEL

Hand Sprayers



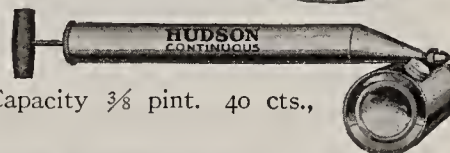
No. 435. Cardinal. Particularly adapted for use in the dairy-barn, milk-house, poultry-house, and garden. Pump is 15 inches long, 1½ inches in diameter. Heavy galvanized tank, capacity 3 quarts. \$1.50, postpaid \$1.65.



No. 427G. Critic Continuous Sprayer. Has 1-quart glass jar which is detachable from pump. Wide mouth makes filling or cleaning an easy task. \$1.20, postpaid \$1.40.

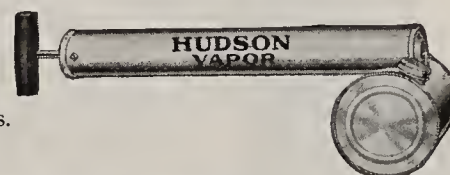


No. 232. Junior Continuous. Meets the demand for a small continuous Sprayer for household use. Capacity ¾ pint. 40 cts., postpaid 50 cts.

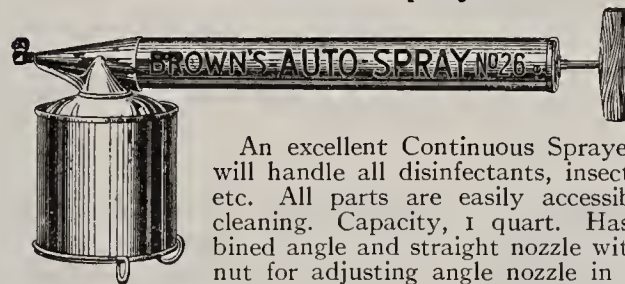


No. 452. Misty Sprayer. A universal favorite for use about the house, garden, poultry-house, etc. Fitted with drip-cup to prevent dripping of solution. Capacity 1 full quart. 45 cts., postpaid 55 cts.

No. 222. Vapor Sprayer. A small Sprayer for general purposes in and about the house. 30 cts., postpaid 40 cts.



Brown's Continuous Sprayer



An excellent Continuous Sprayer that will handle all disinfectants, insecticides, etc. All parts are easily accessible for cleaning. Capacity, 1 quart. Has combined angle and straight nozzle with lock nut for adjusting angle nozzle in proper direction.

No. 26A. Heavy Tin Pump and Tank. 75 cts., postpaid 85 cts.

No. 26D. Seamless Brass Pump and Solid Copper Tank. \$1.75, postpaid \$1.85.

Willson Dustite Respirator



SAVE YOUR LUNGS

Don't ruin your health. Protect your nose, mouth, throat, and lungs.

Farmers wear this mask for spraying and dusting trees and plants, threshing, tractor work, cleaning buildings, spreading fertilizers, handling crops, treating wheat for smut, using powders for cereal diseases, etc. Price \$2.25, postpaid.

Myers Cog Gear Spray Pump Double Acting



This is our most popular Barrel Spray Pump, and is recommended to those who require a Sprayer of exceptional capacity and durability. A constant high pressure can be maintained with little or no exertion, and one man can operate this pump without fatigue.

With brass valves and ground bevel brass seats, 2-inch seamless brass removable cylinder, hemp-packed plunger, double lever shut-off discharge.

Adapted for spraying under heavy pressure, mounted complete, occupying smallest possible space. Will fit in an ordinary farm wagon box.

No. R316B, Pump complete, 50-gallon barrel mounted on skids, with pressure gauge, 15-foot lead of $\frac{3}{8}$ -inch 7-ply discharge hose, nozzle, 8-foot pipe extension, lever shut-off and mechanical agitator. Price \$54.

The Myers Portable Sprayer

A handy outfit suitable for spraying trees, whitewashing, painting, etc. The tank is made of extra-heavy galvanized iron, reinforced at top and bottom by steel bands, and hung in the frame on trunnions. The pump is securely attached to the tank by means of a clamp connected direct to the channel iron that surrounds the top of the tank held in position by one thumb-screw. Pump is fitted with dasher agitator. The handle can be located at any point desired.

Equipped with 15 feet of $\frac{1}{2}$ -in. hose, 8-foot extension, and Vermorel nozzle. Capacity 12 $\frac{1}{2}$ gallons.

R336 $\frac{1}{2}$ B. Single wheel as illustrated; wheel has 3-inch tire. \$25.

R337B. Double wheel. Particularly adapted for greenhouses, dairy-barns, and poultry-houses. Handles are short, to permit turning in narrow alleys. Wheels have $1\frac{1}{4}$ -in. tire. Price \$22.50.

R339 $\frac{1}{2}$ B. Same as outfit No. R336 $\frac{1}{2}$ B, but with air-chamber, which assists in keeping up a steady spray. Same equipment, including pressure gauge. \$40.

Whitewash Nozzle for any outfit, extra \$1.

Myers Cog Gear Barrel Spray Pump

Cylinder, Valves, Valve Seats, and Discharge All Brass. 2-inch Cylinder

The construction is such that the entire Pump fits inside the barrel containing the liquid, being bolted fast at its upper end to the head of the barrel. By this arrangement the working parts are entirely submerged in the liquid that is to be sprayed, thereby avoiding all possibilities of losing priming, doing away with the necessity of a suction pipe, placing the agitator in the bottom of the liquid in a simple form, and also doing away with a large number of complicated parts. Base fits 8 x 8-inch hole. Has bronze ball valves and brass seats. The plunger is self-expanding.

No. R318B, Myers Cog Gear Barrel Spray Pump, with one lead of 15 feet of $\frac{1}{2}$ -inch 5-ply discharge hose, graduating Vermorel nozzle, and mechanical agitator, without barrel, \$16.

Hudson Perfection Sprayer

A high-pressure machine for all types of spraying jobs. Made with either brass or galvanized tank. Has many special features. Brass pump screws into malleable top, permitting entire assembly to be removed at one operation. All seams riveted and heavily soldered. Equipped with 27 inches of 5-ply hose, brass nozzle, automatic shut-off, and 24-inch brass extension rod. Capacity 4 gallons.

No. 110G. Galvanized Tank.....\$6 25

No. 110B. Brass Tank.....9 60
Postage extra 35 cts.

Hudson Junior Sprayer

A high-grade compressed-air Sprayer. Made with either brass or galvanized tank. All seams are riveted and heavily soldered. Top and cap are malleable. Pump is a seamless brass tube. Equipped with 24 inches of 5-ply hose, 12-inch brass extension rod, brass nozzle, and automatic shut-off. Capacity 2 $\frac{1}{2}$ gals.

No. 140G. Galvanized Tank.....\$4 95

No. 140B. Brass Tank.....6 65
Postage extra 25 cts.

Hudson Climax Sprayer

Designed to meet the demand for a Sprayer at a very favorable price. Capacity approximately 4 gallons. First-quality materials and high-grade workmanship throughout, but with the frills omitted for the sake of economy. A very efficient machine.

No. 135G. Galvanized Tank...\$4 20

No. 135B. Brass Tank6 00
Postage extra 30 cts.

Hudson Thrifty Sprayer

A moderately priced Sprayer for the home, back-yard garden, poultry-house, etc. Handles all liquids. Convenient size for a woman or child to use. Capacity 2 $\frac{1}{2}$ gallons.

No. 120G. Galvanized Tank\$3 90

No. 120B. Brass Tank5 75
Postage extra 25 cts.

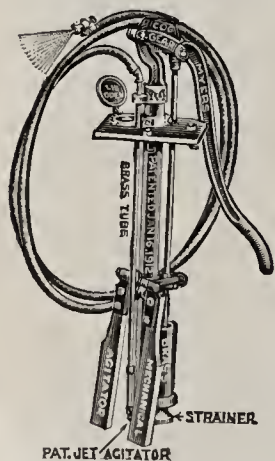
Hudson Sunshine Sprayer

This outfit is adapted for spraying small orchards, vineyards, truck gardens, in the greenhouse, and a very convenient and efficient rig for whitewashing and disinfecting poultry-houses and dairy-barns. Its high pressure and easy portability adapt it for work of all kinds, and its short, compact construction permits its use in close quarters. It can be used



No. 37S. With air-pressure tank. As illustrated.....\$22 50

No. 36S. Without air-pressure tank. Not illustrated.... 12 50





The Myers Compressed-Air Sprayer

The Myers Compressed-Air Sprayer is built in two sizes: 2½ and 4¼ gallons capacity (both over-size) that meet all demands for this style of Sprayer. The tank is made of heavy galvanized iron or brass. The side walls are double seamed, riveted, and soldered. The top and bottom are made of extra-heavy material. Has 1¾-inch brass tube cylinder.

The nozzle is a special feature of this Sprayer. By means of the small lever the spray can be adjusted from a broad, fine spray into a long distance spray, throwing water 20 feet. The valve is simple and

effective. Can be removed instantly.

	Postpaid
No. 1296. 2½-gal. Galvanized Tank.....	\$4 75 \$5 00
No. 1296B. 2½-gal. Brass Tank.....	8 50 8 75
No. 1297. 4¼-gal. Galvanized Tank.....	5 50 5 85
No. 1297B. 4¼-gal. Brass Tank.....	9 50 9 85
Pipe Extension, with side outlet nozzle.....	1 20 1 30

Auto-Spray No. 9 Compressed-Air Sprayer

Corrugated Tank. Screw Lock

A powerful, durable, general-purpose Sprayer for spraying insecticides and disinfectants. It is an excellent machine for small trees, field crops, gardens, chicken-coops, etc.

Tank is of heavy sheet copper or strong copper-bearing galvanized steel, with corrugated tank wall, side and bottom. Has **Non-corrosive Lining** which will enable this Sprayer to outlast several ordinary Sprayers. Pump is 2 inches in diameter, of seamless brass, with all-metal check-valve. Equipped with ¾-inch 5-ply hose, automatic shut-off, non-clog nozzle, and 24-inch seamless brass extension.

No. 9A. 4-gal. Galvanized Tank....	\$6 65	\$7 00
No. 9C. 4-gal. Copper Tank.....	10 00	10 35



Brown's Auto-Spray No. 50

Same construction as No. 9 Auto-Spray, except the tank is not corrugated, and the brass extension rod is only 15 inches long.

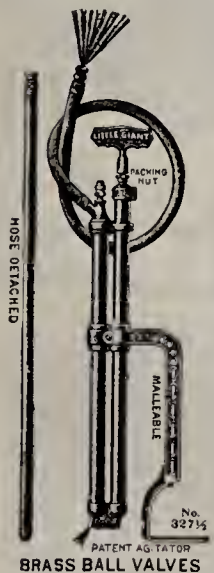
Capacity, 3 gallons.	Postpaid
No. 50D. Galvanized tank....	\$5 50 \$5 75
No. 50B. Brass tank.....	8 15 8 40
Brass Extension. Used where longer extension is required. 22 in. long (straight). 50 cts., postpaid 55 cts.	

Myers Little Giant Sprayer

This Spray Pump is constructed entirely of brass. It is so arranged that the labor of pumping is all done on the downward stroke of the piston and nothing on the up. The effect of this operation while pumping is to hold the pump down. The foot-rest steadies the pump, holding it in position.

It is provided with a large air-chamber. The nozzle throws a continuous spray and is not affected by the movement of the plunger. Will throw a solid stream 50 feet.

No. 327½. Complete with hose and Imperial combination fine- and coarse-spray and solid-stream nozzle, \$3.75, postpaid \$4. Whitewash Nozzle, extra \$1.



The Myers Knapsack Sprayer

An ideal outfit for spraying row crops where the acreage is limited. It is equipped with a real all-brass pump with a jet agitator that keeps the liquid thoroughly mixed. The pump is fitted with large air-chamber and brass ball valves. It is easy to operate and delivers a perfect spray. Tank capacity 4 gallons, with a tight cover and removable strainer.



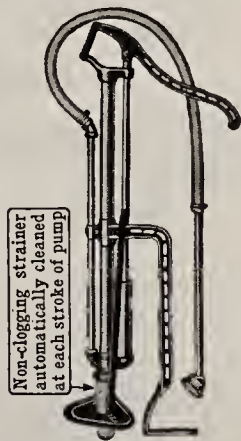
No. 1330. Galvanized Tank, 18-in. Brass Pipe Extension, with 45-degree Nozzle. \$12.50, postpaid \$12.85.
No. 1331. Brass Tank, 18-in. Brass Pipe Extension, with 45-degree Nozzle. \$18, postpaid \$18.35.

Spraying and Whitewashing Machines

Hudson Moro Spray Pump

Designed for use with whitewash, cold-water paints, and insecticides. All working parts are brass. Valves and nozzle parts easily accessible for cleaning. Cylinder of seamless brass tubing. Dasher-type agitator which operates on each stroke of pump and keeps material in solution and thoroughly cleans strainer screen.

No. 126SA. Complete with 3 feet of ¾-inch spray hose, 12-inch extension rod, and nozzle fitted with discs for spray or solid stream. \$6.25, postpaid \$6.50.

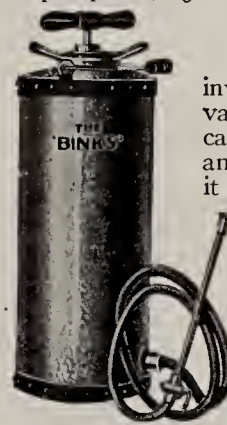


Non-clogging strainer automatically cleaned at each stroke of pump

BINKS, STYLE H

A Whitewashing Machine is one of the best investments for a farmer or poultryman. The various classes of work to which the machine can be applied are almost unlimited, and the amount of work which can be performed with it in a day by ordinary unskilled labor will prove astonishing, while the expense of brushes, pails, ladders, and other tools of the painter's kit is entirely dispensed with.

Tank is of extra-heavy, galvanized steel, attractively finished, riveted down the entire side, top, and bottom, and is made to withstand pressures that would actually burst the average Sprayer of this type. The applications for this Sprayer are almost without end, being adapted for all types of insecticides.



Style H

Factories, industrial plants, and institutions of all kinds find this equipment an indispensable accessory for general spray applications. Will also be found invaluable for small classes of work, as around residences, barns, dairies, poultry-yards, greenhouses, gardens, etc. Capacity of tank, 5 gallons. Furnished complete with 10-foot, ¾-inch discharge hose spray pipe, shut-off valve, and nozzle ready for work. Price, \$14.25, postpaid \$14.55.

POWER SPRAYERS.

In addition to the Sprayers shown in this catalogue, we offer a complete line of Power Orchard Sprayers and Power and Traction Potato Sprayers. Tell us your requirements and we will be glad to send complete Catalogue and Price-List.

Hudson Signal Duster



A favorite for dusting about the home against roaches, ants, flies, mosquitoes, etc. Handles insecticides in powder form very efficiently. Can be used in numerous ways. Price 30 cts., postpaid 40 cts.

Hudson Major Duster

Handles all kinds of dry dust very efficiently. It is used in the home-garden, on truck-plots, in potato-fields, in the dairy-barn, around poultry-houses, etc.

Furnished with two 12-inch, heavy tin extensions and two tips, one an angle tip for ordinary purposes, dusting the under sides of leaves, plants, etc.; the other a broad-angle tip for use where larger areas are to be covered. Price \$1.25, postpaid \$1.40.



The Calispray Garden Duster

The best-built garden Duster of its type. Holds 4 ounces of dust and throws a cloud 6 feet. Very serviceable for dusting plants, roses, or a small garden. Price \$1, postpaid \$1.15.



Brown's Crystal Duster



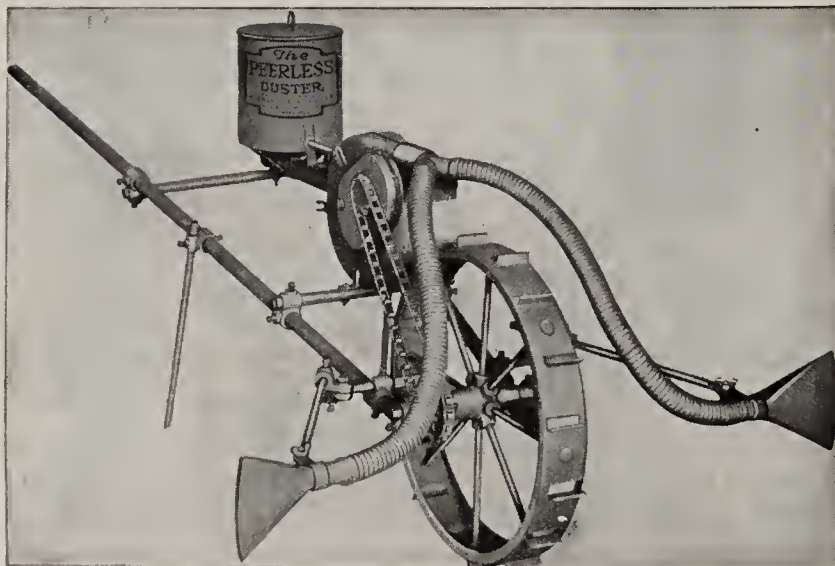
A new-type hand Duster, with glass jar container. The volume of dust expelled is controlled by the force used in pump-

ing. A greater volume is expelled when the holes in the agitator tube are turned directly down, so that the dust is centered about the agitator tube. This Duster is especially good for use in dusting orchards, garden truck, field-crops, and poultry-houses, and is especially recommended for use with Cyanogas. Capacity 1 quart. Price \$1.40, postpaid \$1.55.

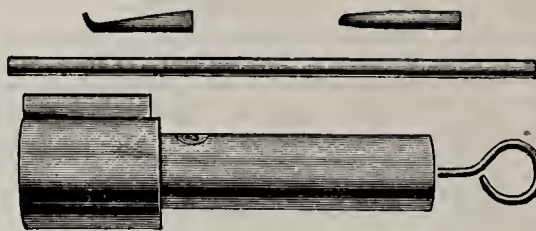
The Peerless Mixer

A wonderful machine for home mixing of insecticide dusts, or to lighten up ready-mixed dust and break up any lumps that may possibly have formed in it. It is a labor-saver, easy to manipulate, takes up little space, and is always ready for use. You can save time, money, and patience by using the Peerless Mixer.

Another purpose for which the Mixer is used is by poultry-raisers who desire to mix their own scratch-feed or mash. It can also be used for treating seed-grain. It is intended for dry mixtures, but a slight moisture will not interfere with its efficiency.



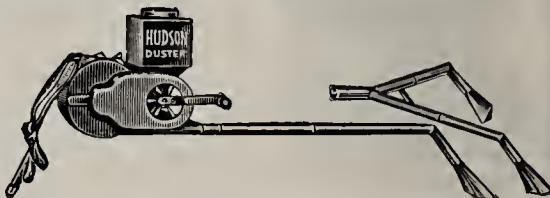
The Silver Beauty Garden Duster



Holds 1 pound of dust. Throws a cloud of dust 8 to 10 feet. Has tube and spreader to reach ground without stooping. An ideal home-garden Duster. Price \$2.50, postpaid \$2.65.

Hudson Crank Duster

Designed to give the maximum value at a minimum cost. Can be used for all classes of work. Handles all dusting materials very efficiently. Sturdily



built, with all working parts mounted on a heavy bar frame. Machine-cut gears, semi-enclosed, and brass pinions, insure easy operation. Four-blade, high-speed fan runs in bronze bearings. Efficient agitation prevents clogging. Powder reservoir holds better than three quarts. Brass indicator adjustable for any volume of discharge. Discharge equipment consists of three 14-inch tubes, two elbows, one Y, two nozzles, and adjustable carrying-strap. Price \$8, postpaid \$8.25.

Woodason's Insect Powder Bellows



Just the thing for dusting insecticides in houses and gardens. Particularly adapted for eradicating bedbugs and roaches. Being strong, it blows the powder well behind the wood-work and into the cracks where the insects breed. It is exceptionally well made of high-grade materials. Small size, \$3; large size, \$4.75. Postage extra 25 cts.

The size of the drum is 16 by 24 inches, and stands 35 inches high when set up. Weight 60 pounds. Capacity about 1 bushel. Price \$20.



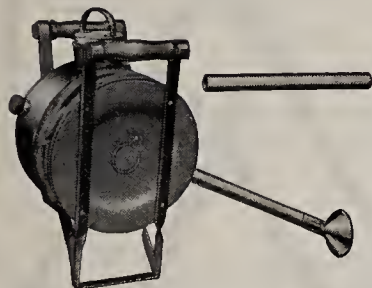
Peerless Traction Crop Duster

A wonderful aid to the grower with 1 to 3 acres of row-crops to be dusted at one time. This one-man, push-type Duster permits the operator to walk at an ordinary pace and develop a complete dust-fog that envelops the crop being treated. The weight of the Duster and material is carried by the wheel. Nozzles may be set to dust both sides of one row, one side of each of two rows, down on top of two rows completely, or the under sides of one or two rows completely. Nozzles are adjustable to rows from 6 to 48 inches apart and in heights from ground to 36 inches. This Traction Duster is just the thing for the truck-gardener, potato-grower, nurseryman, florist, or estate-owner. Weight 60 pounds; capacity of hopper, 9½ pounds of lime. Price \$40.



Platz Green Double-Action Duster

Fits the back snugly, with a strap over each shoulder. Through the elimination of gears, practically no muscular effort is required to operate the Duster and obtain the most efficient results. The 44-inch discharge pipe, with its adjustable spreader, is sufficiently long to dust the underneath side close to the ground, as well as to throw a cloud of dust 20 feet in the air. Its large carrying capacity eliminates loss of time in repeated fillings. The agitator will thoroughly crush sulphur, and works perfectly with all standard dusting materials. Regulator is easily adjusted, and may be set for a light or heavy application. The double bellows insures a steady flow of dust, and is better adapted for dusting a denser growth of foliage. Weight 17 pounds. Capacity 20 to 30 pounds. Price \$22.



Platz Green Hand Duster

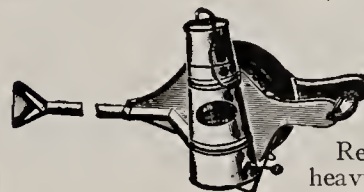
A fool-proof and practically indestructible Hand Duster—the wearing parts can be readily replaced. Has a large, powerful bellows and a capacity of 2 to 4 pounds; 30-inch extension with spreader. Will handle any dust that can be used in larger outfits. Price \$7, postpaid \$7.25.



Peerless Dust Gun

The Peerless Hand Dust Gun is well constructed of first-class material and is built for service. The Gun is adaptable for dusting trees, one-row dusting, two-row dusting, dusting underneath foliage, and also dusting in burrows.

The gun is balanced, the hopper containing the dust hangs on the back, while the fan hangs to the front. The suction pipe connects the two, while a strap thrown over the shoulder supports the weight. The 5-blade fan is made in one piece and fastened to a shaft mounted with ball bearings which are continually lubricated with grease. The gears are cut in steel and brass, opposite metals working together, and were designed for power and service. They are assembled in a tight housing and run in grease. The gear ratio is 43 to 1. With ordinary turning, the fan shaft will develop a speed of 1,800 revolutions per minute. The quantity of dust entering the intake pipe can be readily changed to produce a light mist or a dense fog-like cloud. The capacity of the hopper is 9½ pounds of lime. Equipped with a rotating and oscillating agitator which keeps the contents of the hopper on the move. Price, complete \$20, postpaid \$20.35.



Platz Famos Hand Duster

Regulator is adjustable for a light or heavy application. Bellows of high-quality leather. Length of extension pipes, 24 inches. Compact and efficient. Capacity 1 pound. Price \$5, postpaid \$5.15.

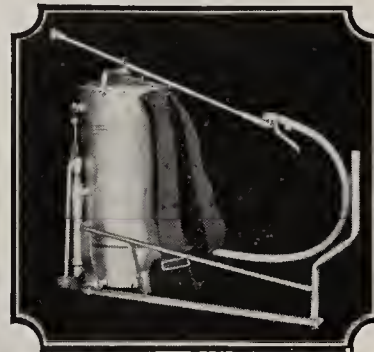
American Beauty Duster

The American Beauty is extensively used by the U. S. Department of Agriculture, many state universities, and the governments of many foreign countries. It is small in size and cost, but large in work accomplished. One man can dust trees up to 25 feet in height, and cover 3½ acres or more in a day and corresponding acreages in row crops. It is constructed of the finest materials and guaranteed to be satisfactory. Weight 16 pounds. Holds 15 pounds of dust. Price \$20, postpaid \$20.30.



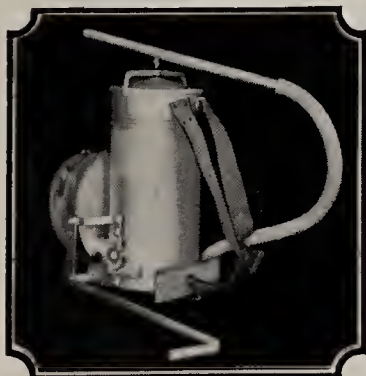
Super-Mist Sprayer

Without question, the greatest improvement in spraying equipment for many years. It is carried like a knapsack and is equipped with padded shoulder-straps and back-rest which insure comfort. All working parts are outside the tank, making them easily accessible for cleaning and adjustment. Entire top lifts off for easy filling. Has 30-inch flexible hose and 36-inch extension rod. Capacity 4 gallons. Price, galvanized tank, \$16; brass tank, \$20. Postage 35 cts. extra



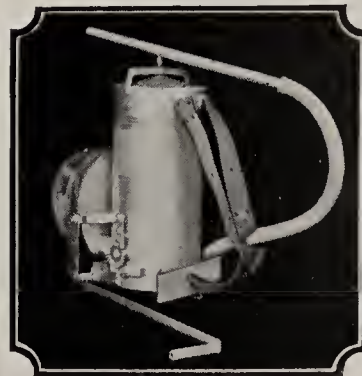
Blue Beauty Duster

Is the same size and shape as the American Beauty. The sifting device has been modified and is not quite so smooth and positive. The Blue Beauty is a very fine Duster for dry dusts, such as sulphur or lead arsenate. Equipped with 30-inch flexible rubber hose, two 20-inch lengths of tubing and spreader. Weight 14 pounds. Price \$17, postpaid \$17.25.



California Beauty Duster

The very Duster for truck crops. The bellows action is so rapid as to give an almost continuous flow of dust and still be under complete control at all times, doing away with waste. This feature makes it ideal for row crops, such as potatoes, peas, beans, cabbage, etc. There are no rapidly revolving parts to give trouble. Weight 11 pounds. Holds 12 pounds of dust. Price \$14, postpaid \$14.25.



Bartlett Compound Lever Tree Trimmers

No. 1-RJ has a jointed pole made in 4-foot lengths. The Compound Lever head is calculated for heavy work and will cut a limb up to 1 1/4 inches in diameter. Instead of running a rod, connecting the knife lever along one side of the pole to a handle lever, the handle lever is placed on the opposite side, which allows the rod to cross the pole. As a result, one-half the strain is thrown on each side of the pole, which gives about double strength. The jointed pole appeals to the user because of the fact that only one pole is necessary for either high or low trimming. It is also an advantage in that it can be carried about in 4-foot lengths, also be conveniently put away after the pruning season is over.

8 feet, 2 sections.....	\$6 25	Postpaid \$6 50
12 feet, 3 sections.....	7 00	7 30
16 feet, 4 sections.....	7 75	8 10

No. 1-W Pulley Type is also furnished with a jointed pole and differs from the No. 1-RJ in that it has a rope-operated cutting head. The top section or section with cutting head is 4 feet long. The lower sections are also 4 feet long and are equipped with brass sleeve body on one end and brass ferrule on opposite end. The lower sections fit top section, and as many of the lower sections can be used as desired. An ideal pruner for use near high-tension power lines. 4-foot top section \$6.75; extra 4-foot sections, each \$2.75. Postage extra, 10 cts. per section.

West's Lightning Tree Trimmer

The handle for operating the shear slides on the pole and leverage is obtained by a rope working through two iron pulleys, one single sheave pulley which is fastened to the pole and one double sheave pulley which is movable. The spring is 4 inches long, giving quick and positive action. The rod is 3/16 inch steel, galvanized. Cutting capacity 1 inch.

8-foot.....	\$2 00	12-foot.....	\$2 60
10-foot.....	2 30	14-foot.....	2 90

No. 1-W

West's
Lightning
Tree
Trimmer

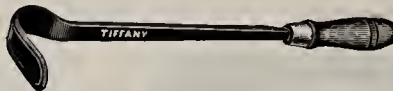
Tiffany "Hammer-Forged" Pruners

These are strictly high-class Pruners in every detail. Forged from special steel they are carefully tempered to stand the strain and hold a keen edge. They are put together with a heavy rivet under tremendous pressure, which insures a good fit, having no nuts to work loose. Their steel levers are forged thin and light, yet are very stiff and strong, and the wooden hand-grips are put on to stay. The jaws open very quickly without spreading the handles too far apart. Blade is thin and, having the draw-cut principle, cuts very smooth and easy, leaving no stub. Its high quality will prove it a good investment. Cuts 1 1/2-inch limbs with ease. Length 25 inches. Either pattern, \$3, postpaid.



Tiffany Grafting Tool

Forged from one piece of fine crucible steel. It makes clean splits and does not tear the bark or split the stub too far. Length 8 inches. \$1.25 postpaid.



Tiffany Improved Tree Scraper

A handy tool for removing loose bark that harbors insects. Made of thin forged spring steel. Length 12 inches. \$1.25 postpaid.



No more
handle trouble
Top, Tiffany's
Standard Pattern
Lower, Tiffany's
California Pattern

PRUNING SHEARS

Boker's No. 550. Polished oval Rieser pattern hand-forged high carbon blade and hook. Volute spring. Lock nut and bolt. 9-inch. \$1.



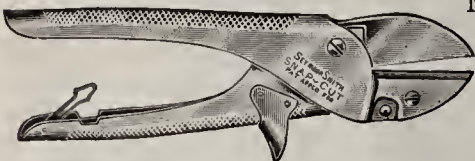
Genuine French Shears. Forged tool-steel blade. Drop forged handles. Wheel-spring type which insures easy, positive action. 9-inch. \$2.75.



Henckels' Double-Cut Pruner. Made especially for rugged work. Forged steel blades. Very handy for cutting roots and tubers. No. 192. \$5.



Snap-Cut Pruner. The special hardened tool-steel blade cuts onto a soft metal anvil with a powerful drawing or slicing action that cuts a 3/4-inch branch with surprising ease. Makes a perfect clean cut on large or small branches. All-steel construction; cannot break or bend. No. 119. 7 3/4-inch. \$2.



Disston's No. 116. Malleable iron with blade of high carbon steel, hardened and tempered. Thread and lock-nut tension adjustment. 9-inch. \$1.



Disston's No. 146. Solid drop forged tool steel. Blade hardened, tempered, ground and polished. Thread and

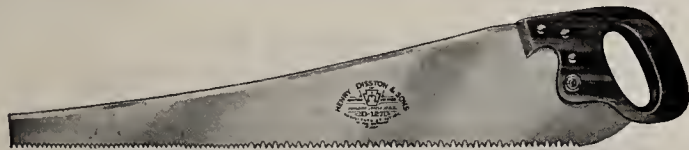
lock-nut tension adjustment. 9-inch. \$1.35.

Disston's No. 136. Drop forged tool steel with detachable, high carbon tool-steel blade; hardened, tempered, ground and polished. 9-inch. \$1.75.



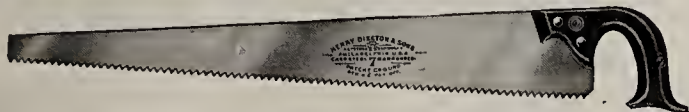
Disston's No. 156. Drop forged high carbon steel with double riveted, detachable blade of alloy steel; hardened, tempered, finely ground and highly polished. 8 1/2-inch. \$3.75.

PRUNING SHEARS BY PARCEL POST 10 CTS. EACH EXTRA



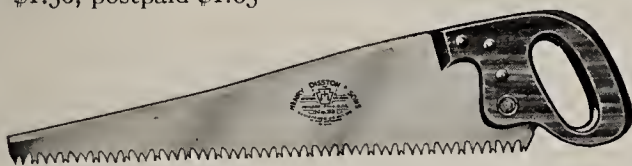
No. D-127 Disston's Pruning Saw

A 10-inch section at point of blade is made 6 points to inch; rest of blade has "lumberman" teeth. The fine teeth are for starting cut. Blade 26 inches long. \$4, postpaid \$4.15.



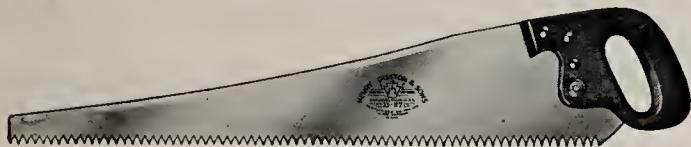
No. 7 Disston's Pruning Saw

An old stand-by. Designed for general pruning. Blade of Disston steel, taper ground; cross-cut teeth, 8 points to the inch. Hardwood handle, open grip; three brass screws. Blade 18 inches long. \$1.50, postpaid \$1.65



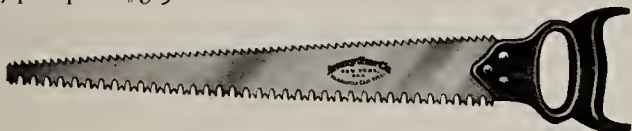
No. 32 Disston's Pruning Saw

Just the tool for foresters and orchardists. Steel blade 20 inches long, 5 inches wide at butt, 1 inch wide at point. Champion teeth. Hornless handle of beechwood. Dowel pin through grip gives unusual strength to the handle. 20-inch blade, \$2.25; 24-inch blade, \$2.60. Postage 15 cts. extra.



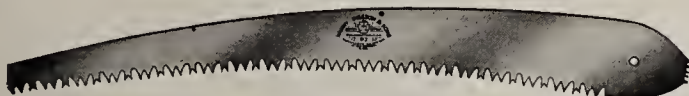
No. D27 Disston's Pruning Saw

Designed for the professional. Steel blade 26 inches long, 6 inches wide at butt, 1 1/4 inches wide at point; 6 points to the inch. Cuts on both draw and push stroke, either dry or green wood. \$3.75, postpaid \$3.90.



No. 40 Disston's Duplex Pruning Saw

Steel blade with double straight-edge; top edge, 8 point cross-cut teeth and lower edge "lumberman" teeth. Blade secured to beech handle with three brass screws. 16-inch \$1.20, 18-inch \$1.30, 20-inch \$1.40; postage 15 cts. extra.



No. 83 Disston's Walnut Pruning Saw

Blade of Disston steel. Butt of blade has ratchet teeth to engage sprocket on mounting to which blades are attached. Has "Champion" pattern teeth. Length 24 1/4 inches. \$2.75, postpaid \$2.90.

No. 82. Same as No. 83. Cuts on draw stroke. \$2.75, postpaid \$2.90.

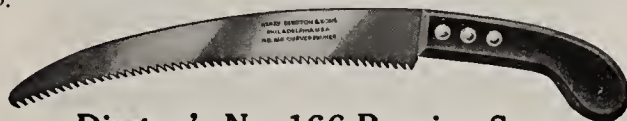
No. 80 Walnut Pruning Saw Mounting

Made from heavy sheet steel for holding No. 82 and No. 83 Saws. Holes in tang take a 3/16-inch bolt for fastening to pole. 85 cts., postpaid 95 cts.



No. 15 Disston's Pruning Saw

Steel blade 14 inches from center to center of hole, 1 inch wide, 8 points to the inch; adjustable; cuts on both draw and push stroke; swivel on both ends; wing-nut tightener. \$2.25, postpaid \$2.40.



Disston's No. 166 Pruning Saw

A good, strong, practical tool with 14-inch crescent-shaped steel blade; 1 1/2 inches wide at handle; teeth on concave edge to cut on draw stroke; 8 points to the inch. \$1.15, postpaid \$1.25.

No. 168. Similar to No. 166 but cuts on both draw and forward stroke. \$1.30, postpaid \$1.45.



No. 55 Orchard Pruning Saw and Shear

A combination tool—saw and shear. The curved blade makes it easy to engage and to saw the higher branches of a tree when using a pole. The blade of the saw is 9 1/2 inches on cutting edge.

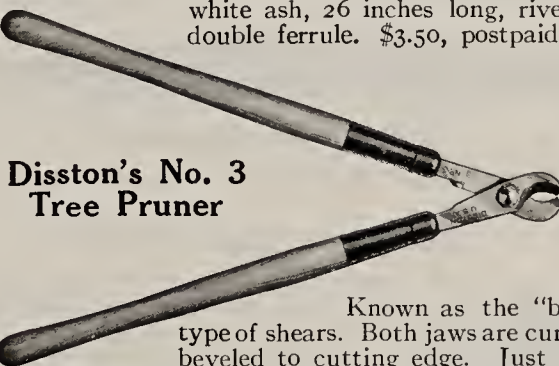
Shear frame and socket is made of malleable iron. Blade shaped to cut with a shearing motion. The hook will take a 3/4-inch or smaller limb. Shear blade is 4 inches long with 1 1/2-inch cutting edge. Spring returns knife to open position. Price, without pole, \$3, postpaid \$3.15.

No. 111 Pruning Saw. Same as No. 55 except without shear. \$2.25, postpaid \$2.40.



No. 777 Bartlett Tree Pruner

A Pruner designed on scientific principles and built to stand up to the work. The blade positively will not cut or dig into the hook. By dropping the hook considerably below the center line, a positive draw-cut is produced with an opening between blade and hook, allowing a straight thrust at the branch. Both blade and hook are hardened drop forged crucible tool steel. Handles white ash, 26 inches long, riveted and double ferrule. \$3.50, postpaid \$3.75.



Disston's No. 3 Tree Pruner

Known as the "bull-dog" type of shears. Both jaws are curved and beveled to cutting edge. Just the tool for heavy pruning. Blades of Disston steel, hardened and tempered to hold keen cutting edge. Hardwood handles 20 inches long are reinforced by heavy steel cup ferrule and long steel ferrule. Special Disston patented tension and adjusting device. \$3, postpaid \$3.15.

S-W Pruning Compound

1-pt. can 45 cts., postpaid 60 cts.; 1-qt. can 75 cts., postpaid 90 cts.; 1-gal. can \$2.50, postpaid \$2.80

Metropolitan Hotbed Sash



Metropolitan Hotbed Sash are made from the very best grade of air-dried Gulf cypress, smoothly milled. All parts are mortised and tenoned on the very latest and specially built machines to insure accurate, smooth, and tight-fitting joints, which is very essential in Hotbed Sash. All the bars are beveled at the bottom, to admit the maximum amount of light. They are carefully assembled and clamped perfectly square and nailed with cement-coated nails and steel barbed dowel pins.

All Sash are made $\frac{1}{2}$ inch wider than finished size, and then run through a specially built machine which finishes the Sash the same width and planes the sides perfectly straight to prevent any open space between Sash when laid on the frame. After the above work is performed, each Sash is carefully examined for any possible defects in material or workmanship and all Sash passed O. K. are run twice through a three-drum sandpapering machine to make them perfectly smooth and all the same thickness.

PRICES

Four rows, single-layer putty Sash; for either 6 x 8 or 8 x 10 glass. Sash are 3 feet 2 inches wide by 7 feet long, $1\frac{3}{4}$ inches thick, made of best cypress, with round iron crossbar in center, and with horns. Unpainted, without glass, \$4.10 each. Five-Sash lots 15 cts. per sash and 10-Sash lots 30 cts. per sash less than above price.

For 4 x 6 foot, add 30 cts. per sash to above prices.

Special prices on larger quantities.

We can furnish any other kind or size sash required.

Glass for Hotbed Sash

We carry in stock Lustra Glass, also Pennvernion Glass, both flat drawn and made by a new process.

	Per box
6 x 8, 150 lights, B, Single Strength	\$4 00
8 x 10, 90 lights, B, Single Strength	4 00
10 x 12, 60 lights, B, Single Strength	4 00
8 x 10, 90 lights, A, Single Strength	4 75
10 boxes and upward, 25 cts. per box less than above prices.	



Hotbed Thermometer

No. 5981, Length over all, $15\frac{1}{2}$ inches. \$3, postpaid \$3.10.

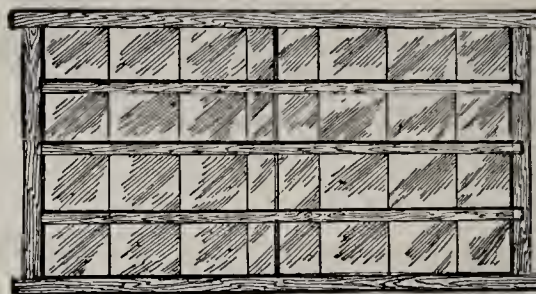
Neponset Flower Pots



Neponset flower pots are universally used by home growers of flowers and vegetables, by truck-gardeners, by florists, by every grower of plants on a small or large scale. They are light, durable, and inexpensive. When used for transplanting they can be handled quickly and the construction permits removing easily if desired. They are ideal for rooting or shipping vegetable and flowering plants of any description. They are made from a tough, lasting, and water-proof paper and will not break in shipment or handling.

	25	Postpaid	100	Postpaid	1,000
2 $\frac{1}{4}$ -in.	\$0 25	\$0 35	\$0 65	\$0 80	\$5 00
3-in.	35	45	85	1 00	6 50
4-in.	45	55	1 25	1 50	10 00

Eureka Hotbed Sash



Eureka Sash are manufactured from Gulf cypress, every piece of which is guaranteed to be free of sap or defects of any kind.

They are made perfect and so accurately fitted that they will hold together in good shape for many years under ordinary usage.

All Sash are rabbeted for lapped glass and are of standard size, 3 feet 4 inches by 6 feet for four rows of glass 8 inches wide. Each Sash will hold 28 panes of 8 by 10-inch glass. The stiles, or outside bars, are $1\frac{3}{8}$ inches thick and about $2\frac{1}{2}$ inches wide. The three rabbeted bars are $1\frac{3}{8}$ inches thick. An oak crossbar runs through the rabbeted bars and half-way into the stiles. Furnished knocked down, unpainted and without glass. Price, \$3.25 each; per bundle of five, \$15. See left-hand column of this page for prices of glass.

Mastica Glazing Compound

Mastica is elastic and tenacious. In a few hours after use, a skin or film is formed, preventing the evaporation of the oils and leaving it pliable for years. On account of this quality, it admits of the expansion and contraction which is continual in the wood-work of a greenhouse from moisture and heat. One gallon will cover about 290 running feet, one side. Gallon can \$2.35, postpaid \$2.65.

MASTICA GLAZING MACHINE. For applying Mastica. \$2.75, postpaid \$3.

Densoplastic Glazing Putty

An ever-elastic cement for glazing, reglazing, and repairing greenhouses and hotbed sash; guaranteed to hold fast to glass and bars and always remain plastic and not chip off. It can readily be removed with a putty-knife, thus permitting the easy replacement of broken panes.

1-gal. can.	\$2 50	30-gal. drum.	\$64 50
5-gal. pail.	12 00	55-gal. drum.	115 50
20-gal. keg.	44 00	Glazing Gun.	4 00
Glazing Gun free with 55-gallon drums.			

Duro Guttercoat

A weather-proof and waterproof coating for relining old, wornout gutters and for waterproofing new ones. Applied with an ordinary brush, makes a coating ten times thicker than ordinary paint.

1-gal. can.	\$1 00	20-gal. keg.	\$17 00
5-gal. pail.	4 50	40-gal. drum.	32 00

Duro Greenhouse White Paint

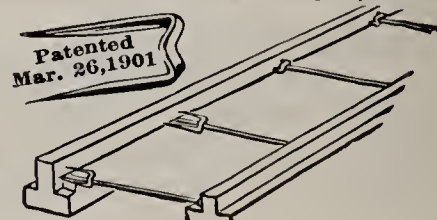
Made for both interior and exterior use. Makes a beautiful tile-like finish that can be washed repeatedly without being affected.

1-gal. can.	\$2 95	10-gal. keg.	\$28 00
5-gal. pail.	14 25		

Peerless Glazing Points

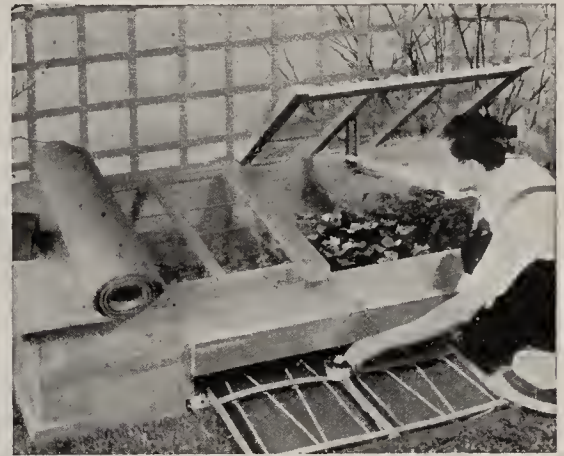
Used by all practical florists and market-gardeners for glazing hotbed sash. No. 1. For small, single-thick glass. No. 2. For large, single-thick glass. Both sizes, 75 cts. per 1,000, postpaid.

PEERLESS GLAZING POINT. (Improved Van Reyper.)



Westinghouse Automatic Hotbed Heater

Quicken plant-growth with controlled electric heat. Westinghouse Automatic Hotbed Heater provides the right amount of heat for indoor or outdoor beds of any size between 9 square feet and approximately 25 square feet. Its Built-in Watchman Thermostat automatically maintains any desired temperature between 50° F. and 100° F. To adjust heat, merely turn a handy knob located on the thermostat. Cost of operation is low, its consumption averaging 1 to 2½ kilowatt-hours per day. Its frame is rustproofed; moisture will not affect it. Heating elements are of special long-lived construction. Ask for Circular 1954-A; it describes the Heater in detail and tells how to build a hotbed. Heater is 32 inches square. Assembled complete with Thermostat and 5-foot rubber-covered cord, for 110 volts. Price, Hotbed Heater only, \$9.95.



Gator Hide Mulch Paper

Use Gator Hide Mulch Paper to obtain better results from your garden. Just lay the paper over prepared soil, put in your plants or seeds in accordance with directions, and the increased ground-temperature, the greater soil-moisture, and the elimination of weeds will show you a real miracle. Gator Hide grows bigger, better, earlier crops. Use it on vegetables or flowers. Booklet "The Miracle of Mulch Paper" free on request.



PRICES				
Type	Width in.	Length ft.	Sq. ft.	Per Roll
A {	(light	18	900	1,350.. \$3 00
	weight)	36	900	2,700.. 6 00
B {	(heavy	18	450	675.. 3 00
	weight)	36	450	1,350.. 6 00
Garden Package: Type B, 45 lineal ft., 18-in. width, 65 cts., postpaid 75 cts.				
Ten rolls 10 per cent discount. Special prices on orders for larger quantities				

Germaco Hotkaps

Earlier,
More Profitable
Crops

Germaco Hotkaps can make many extra dollars for you this season. They are patented wax-paper cones—"individual hothouses for each plant" that completely cover them, and *fully protect* them from frost, wind, rain, ground-crusting, and insects. This is your assurance of earlier, bigger crops, and higher, early-to-market prices. Hotkaps are inexpensive and easy to use. One man "sets" over 3,000 per day.

		Postpaid	
100 Hotkaps.....	\$2 40	\$2 55	5,000 Hotkaps.....\$49 25
250 Hotkaps.....	3 65	3 80	10,000 Hotkaps..... 97 50
1,000 Hotkaps.....	10 00	10 35	

Garden Setters, made of papier-mache, 50 cts. each.

Garden Setter and Tamper included at price quoted with 100 and 250 Hotkaps. Steel Setter, with Tamper, \$2.25 each.



Circular and Sample
on request



Milo Waterproof Hotbed Mats

Made from heavy-weight burlap, absorbent pulp, and felt cemented together with a specially prepared waterproof compound. This combination forms a covering both airtight and waterproof.

Absolutely impervious to rain, sleet, and snow; proof against frost; repellent to rats and mice; easy to handle; wear for years; also make ideal truck covers for marketing vegetables.

	PRICES	
	Each	Doz.
40 x 78 in	\$2 00	\$18 00
78 x 80 in	4 00	36 00

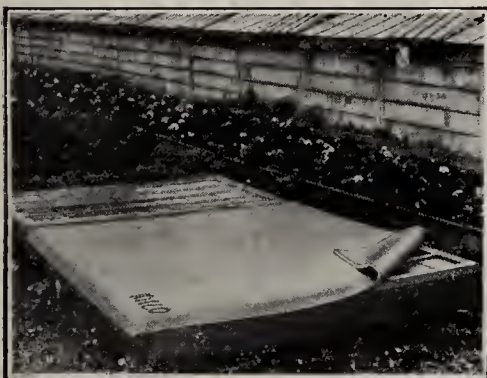
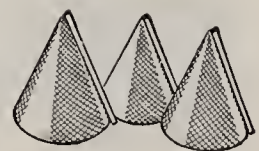
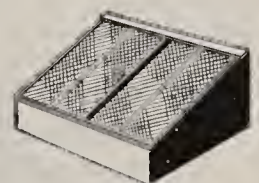
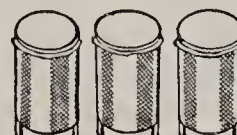
BETTER PLANTS

BETTER YIELDS

WITH CEL-O-GLASS

Grow your own plants. Get earlier flowers and vegetables with Cel-O-Glass. Use the new improved Cel-O-Glass on your coldframes and hotbed sashes; for such important new uses as cylinders and cones for individual plants, forcers for row-plants, and newly planted seeds.

Cel-O-Glass can be used where ordinary glass and cloth cannot. And Cel-O-Glass is much lighter. Sashes are easier to handle. Not affected by hail, snow, rain or wind and can't break like glass. Flexible. Easy to cut and use. Highly translucent. Lets in the ultra-violet rays of sunshine. For prices, refer to page 170.

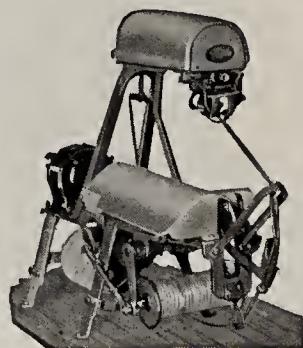


Felins Truck Farm Equipment

Bunch Vegetables, Cut-Flowers, Small Nursery Stock can be tied ten times quicker



Foot Power



Electric

Quicker bunching means quicker sales and greater profits. These machines prove their value to the market-gardener, florist, and nurseryman from the start. Old methods of tying—systems which required hand-operation and consumed the growers' costliest possession, time—can now be dispensed with.

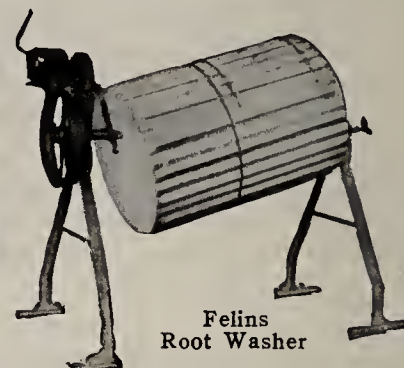
Foot Power \$70

Electric \$140

**Clean Vegetables the Felins Way
for Better Pay
A Boon to the Truck-Gardener**



Torrent Bunch
Vegetable Washer



Felins
Root Washer

Wash 200 dozen bunches an hour with the Torrent. Two can work at the same time.

For bushel crop, Felins Root Washer is outstanding. Capacity is 5 bushels and 60 bushels an hour can easily be washed.

Both washers equipped with $\frac{1}{4}$ -H.P., 110V, 60C motors ready to be plugged into light-socket.

Torrent \$140

Root Washer \$150

Miller's No-Fold Dirt Bands

These Bands are used and recommended for transplanting purposes by experimental stations and large growers. They are time- and labor-savers. The plants need less watering, and when they are ready to set out, the Band can be



planted with plant, preventing the disturbance of the roots. In using Bands you have stronger and healthier plants at the minimum cost. Especially adapted for early vegetable plants.

SIZES AND PRICES	250	500	1,000
2 x 2 x 2 in.	\$0 50	\$0 90	\$1 50
3 x 3 x 3 in.	1 00	1 65	3 00
4 x 4 x 3 in.	1 25	2 15	4 00

Postage on 250, 15 cts.; on 500, 20 cts.; on 1,000, 25 cts.

Miller's Lock-Process Dirt Pots

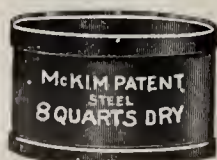
Miller's Pots are made of high-grade water-finished board. Briefly, our Pots when locked stay locked; there is no occasion for the sides or bottoms of our Pots to become loose, and they contain no glue to loosen up or become sour.

SIZES AND PRICES	250	500	1,000
2 x 2 x 2 in.	\$0 85	\$1 50	\$2 50
3 x 3 x 3 in.	1 35	2 50	4 50
4 x 4 x 3 1/2 in.	1 75	3 25	6 00

Postage on 250, 30 cts.; on 500, 45 cts.; on 1,000, 75 cts.

McKim Patent All-Steel Measures

Guaranteed U. S. Government Standard Capacity



	Each	Postpaid
1 qt.	\$0 20	\$0 25
2 qts.	25	30
4 qts.	30	40
8 qts.	45	60
16 qts.	60	75

Per set (5 measures) \$1.60; postpaid \$1.85.

The Saxmayer Vegetable Tyer

The Saxmayer Vegetable Tyer is no longer an experiment, as is testified by hundreds of satisfied customers, but is an essential part of every successful market-gardener's equipment. It will save the labor of from three to six persons per day and will pay for itself in a very few weeks. The machine ties any kind of bunch vegetables except the large dozen-bunches of celery. It uses either cord or, by changing the knotter bill, a No. 13 tape. The Saxmayer does not require a skilled operator to manipulate it. Any man, woman, or child can run it. Little, if any, mechanical attention is required as there is no complicated mechanism to get out of adjustment.

No. 1. Large Tyer for Foot Power. \$125 00

No. 1. Large Tyer with Electric Motor. 150 00

No. 2. Small Tyer 75 00



No. 1 Tyer

The Midget Saxmayer

Designed to meet the demand for a small, portable Tying Machine. It can be used in the field as well as in the washroom. Being small and light weight, it can be placed between the rows, permitting the buncher to tie as he pulls. Fully guaranteed. Price, \$45.

Prices on Cotton Twine and Braid will be quoted on request.

Tilley's Ladders

They are the most convenient orchard Ladders ever produced for trimming trees and picking fruit. Made very light and strong. The best that can be produced.

Single Ladders

OPEN TOP

10-foot.....	\$3 25
12-foot.....	3 75
14-foot.....	4 25
16-foot.....	4 75
18-foot.....	5 75
20-foot.....	6 75
22-foot.....	7 50
24-foot.....	8 50
26-foot.....	9 50
28-foot.....	11 00

POINTED TOP

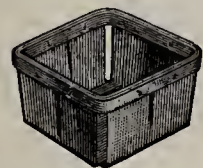
13-foot.....	4 75
15-foot.....	5 50
17-foot.....	6 25
19-foot.....	7 00
21-foot.....	7 50
25-foot.....	9 50
27-foot.....	10 50

Point included in above measurement.

Extension Ladders

OPEN TOP

24-foot, extends to 21 feet.....	\$10 00
26-foot, extends to 23 feet.....	10 75
28-foot, extends to 25 feet.....	11 50
30-foot, extends to 27 feet.....	12 25
32-foot, extends to 29 feet.....	13 00
34-foot, extends to 31 feet.....	14 50



FRUIT PACKAGES

We make a specialty of Fruit Packages, all kinds and sizes to suit the gardening and fruit-growing trade in western Pennsylvania, among which are the following:

Berry Baskets, Diamond Market Baskets, Grape Baskets, Stave Baskets, and Hand-made Baskets. When you are in the market for Baskets, please ask us for prices.



Pennsylvania Fruit-Picker

Price 50 cts., postpaid 60 cts.

More Pennsylvania Fruit-Pickers are used than all other makes combined because they are reliable and sell at a reasonable price. As a Fruit-Picker it has no superior. Made of heavy galvanized wire, and easily adjusted to a pole. It will gather apples, peaches, pears, and all similar fruits.

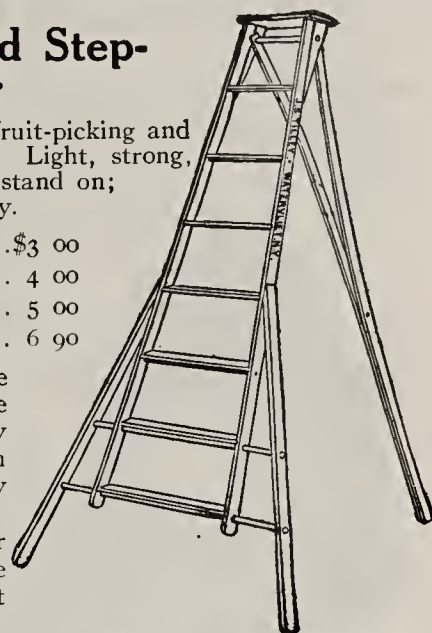
Omega Tripod Step-Ladder

Particularly adapted for fruit-picking and for use on uneven ground. Light, strong, rigid, broad-based. Easy to stand on; easy to move; folds up snugly.

6-step.....	\$3 00
8-step.....	4 00
10-step.....	5 00
12-step.....	6 90

A first-class, well-made article. All flat steps. The two lower are supported by and rest on rounds which tie, support and thoroughly brace the main Ladder.

Tilley Ladders are neither painted nor stained and the purchasers can see just what they are buying.



The Cyclone Planting and Picking-Bag

Convenient for planting potatoes or picking fruit. Is nicely made from heavy duck and has a heavy, adjustable web strap. The mouth of the bag is fitted with a steel frame which keeps it open. It hangs at a comfortable angle and leaves both hands free. 90 cts. each, postpaid \$1.



Owosso Folding Fruit and Vegetable Crate

Holds One Heaping Bushel

It is strong, durable, and unusually convenient to handle. All slats are made from Michigan hardwood beech, smoothly finished with rounded corners so as not to injure the contents.

These Crates are used extensively for handling apples, potatoes, onions, and tomatoes from the fields to the canning factories and warehouses; also for storage purposes. They stack up as high as desired and provide the right amount of ventilation. When empty will nest three together or can be folded flat.

Size of crate, 15½ inches wide, 17¾ inches long, 13½ inches deep. Size of slats, 5/8 inch by 1 inch. Average weight, about 9 pounds each. 60 cts. each, postpaid 75 cts.; \$5 for 10, \$22 for 50, \$41 per 100. We will deliver these Crates at your railroad station in lots of 50 or 100 at the above prices, direct from factory.

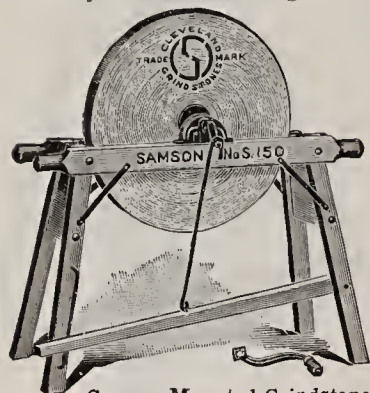


The Sterling Grindstone (Ball-Bearing)

A steel tubular frame, mounted Grindstone. Ball-bearing throughout. Absolutely the best mounted Grindstone on the market.

A double-treadle frame embracing the bicycle features of our bi-treadle. All rods and bolts are threaded; there are no cotter pins and no loose parts. Permanent rigidity is insured. Provided with a large comfortable seat and clothes protector.

Fitted on crank and shaft with improved ball-bearings—encased—consisting of a heavy steel ball casing and a cone or sleeve turned out of solid cold-rolled steel shafting, balls cannot work loose or drop out. Weight of stone 50 to 60 lbs. Price \$9.



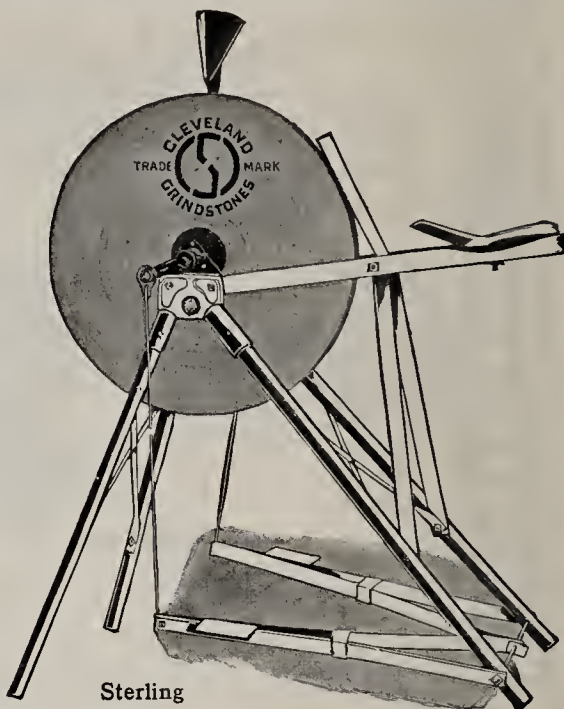
Samson Mounted Grindstone

Samson Mounted Grindstone

Specially Selected Stone

The frame is made of the best seasoned hardwood. The legs are securely framed into the sidebars and fastened by a bolt. The ends of the sidebars are neatly turned to serve as handles.

No. 150 Stone, weighs 100 to 110 lbs., usual thickness $1\frac{3}{4}$ to $2\frac{1}{4}$ inches.....\$9 25
 No. 155 Stone, weighs 70 to 80 lbs., usual thickness $1\frac{3}{4}$ to $2\frac{1}{4}$ inches..... 8 25
 No. 160 Stone, weighs 40 to 50 lbs., usual thickness $1\frac{3}{4}$ to $2\frac{1}{4}$ inches..... 7 50

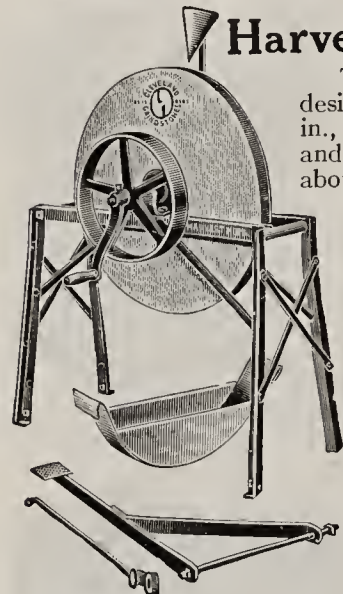


Sterling

Harvest King Power Grindstone

For Farm Use

The Harvest King Roller-bearing Power Grindstone is designed to meet the needs of the farmer who desires a Grindstone to be operated by a gasoline engine. The frame is of heavy angle-steel, $1\frac{1}{4}$ x $1\frac{1}{4}$ x $\frac{1}{8}$ in., strongly braced. Equipped with high-grade, selected Cleveland Grindstone, 24 inches in diameter and 2 inches thick. Pulley 12 in. diameter x $2\frac{3}{8}$ inches. Heavy steel roller bearings. Weight, complete, about 140 pounds. Price, complete, with hand-crank, pulley, drip-cup, trough, and treadle attachment, \$13.50.

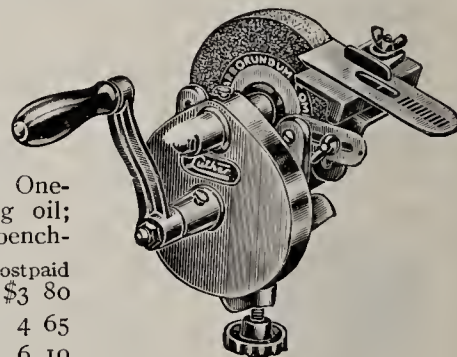


Harvest King Power Grindstone

Luther "Master" Tool-Grinders

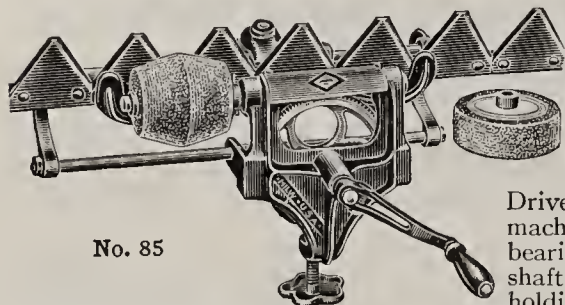
An easy-running and dependable Tool- and Knife-Grinder for everyday use in shops, homes, garages or wherever a portable tool-grinder is needed. Easy to carry and clamps on anywhere. Equipped with Carborundum Aloxite grinding wheels which insure greater cutting ability and longer wear. One-piece, dust-proof gear-case, flanged inwardly for retaining oil; adjustable tool-rest, chisel, and plain bit attachment. Steel bench-screw and malleable iron crank.

No. 114. 4 x 1 x $\frac{5}{16}$ -in. tool wheel.....	\$3 60	Postpaid \$3 80
No. 115. 5 x 1 x $\frac{3}{8}$ -in. tool wheel.....	4 40	4 65
No. 116. 6 x 1 x $\frac{3}{8}$ -in. tool wheel.....	5 80	6 10
No. 117. 7 x 1 x $\frac{3}{8}$ -in. tool wheel.....	6 40	6 70



Luther Farm Grinder

Designed especially for the farmer who wants a good quality hand-power sickle and tool-grinder. Substantial construction;



No. 85

easy and simple to grind mower knives. Grinds six sections before reclamping. Holds any length sickle-bar. No. 85. With $4\frac{1}{2}$ x $4\frac{1}{2}$ in. Medium Dimo-Grit Tool-Grinding Wheel \$8.40, postpaid \$8.70.

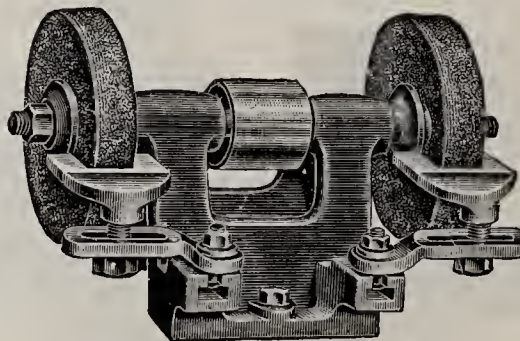
Carborundum File



Mighty handy for the farmer and gardener. Cuts quickly and freely, and gives better, cleaner edge than the steel file, and in less time. For sharpening mower sections and practically any edged farm and garden tool. No. 57. \$1, postpaid \$1.10.

Luther Power Grinder

A medium-duty, belt-driven bench-grinder suitable for grinding edge tools, axes, plane-bits, chisels, knives, etc. Frame made to run belt from above, below, or the side.



A $\frac{1}{4}$ h.p. motor will operate this Grinder satisfactorily. Equipment includes one medium and one coarse 6 x $1\frac{1}{4}$ x $\frac{5}{8}$ in. Dimo-Grit Wheel, two adjustable Work-rests. No. 306. \$7.80, postpaid \$8.15.

Scythe Stones

Carborundum Brand Scythe Stones. Made in just the right grit to give a proper edge. No. 190. 10 in. long, 25c.

No. 191. 12 in. long, 35c. No. 192. 10 in. long (heavy), 30c.

English Scythe Stones. Talacre Pattern. 12-in., 50 cts. each.

Baked Milan Scythe Stones. German Pattern. $9\frac{1}{2}$ -in., 10c. each, 6 for 50c. Scythe Stones by parcel post, 10c. each extra.

POST-HOLE DIGGERS

Standard Earth Augers

Standard Earth Augers are "standard" because they will do the most work in the shortest time with the least labor, and are made of the highest grade material. It is the only Auger made having movable blades which open to discharge contents. Will dump sticky clay with ease. Can be instantly adjusted to bore many different-sized holes. In fact, it has no equal for any kind of earth-boring. It bores seven different-sized holes—8, 9, 10, 11, 12, 13, and 14 inches in diameter and 3½ feet deep. The stem can be fitted with pipe extension to bore extra-deep holes or wells. \$5 each, postpaid \$5.35.

Universal

It has cast steel blade of best quality, strong, durable and easily operated. Works in all kinds of soil, clay, sand, gravel, shale, etc. \$2.75 each, postpaid \$3.10.

Lock Lever

The best implement ever put into the ground for the purpose of digging holes. It is easily operated. A boy can work with it. A trial will convince anyone that it will save its cost in a few days' use. The cast steel blade is fitted with automatic self-lock which locks the blade at right angles so that both hands may be used in lifting the ground out of the hole. Works equally well in any kind of soil from muck to stones. \$2.25 ea., postpaid \$2.55.



Tamping Head Steel Digger

All-steel, long and wide cutting blade with large tamping head made of 1-inch round steel; length over all 5 feet, 9 inches. \$2.40 each.

Wood-Chopper's Wedge

No. 82. Round head; Truckee Pattern. 3-lb. 45 cts. each; 4-lb. 50 cts.; 5-lb. 60 cts.



Truckee Pattern



Wood Plow Doubletree Set

No. 652. Doubletree 3¼ x 38 inches with ¾-inch steel loops, singletrees 2¾ x 30 inches with ½-inch steel loops. The above set made from second-growth hickory, painted red. Complete \$4.65.

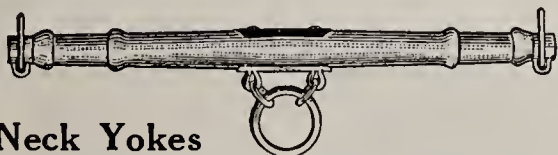
Wood Wagon Doubletree

Doubletree 1¾ x 4½ x 50 inches. Singletrees 2½ x 34 inches. Painted red, varnished and striped. (Not illustrated.) No. 35A. Per set \$4.65.



Agricultural Set

No. 691. Complete hitch for land-rollers, hay rakes, tedders, mowing machines or any implement where flat doubletree is used. Painted red. Doubletree and singletrees \$2.
No. 320 Neck yoke (not illustrated) extra if wanted, 75 cts.



Wagon Neck Yokes

Made from second-growth hickory; center ring 3-inch diameter.

No. 303. 2½-in. x 42 in. long, \$1.60.
No. 305. 3-in. x 48 in. long, \$2.40.



Wood Plow and Cultivator Singletree

Full-length loop pattern strap. Ring in center

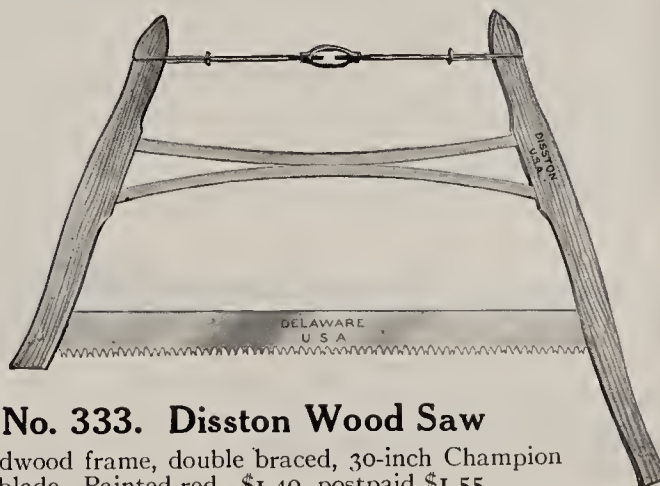
No. 1880.	2¾ x 26-inch.....	\$0 75
No. 1881.	2¾ x 28-inch.....	85
No. 1882.	2¾ x 30-inch.....	95

Breast Yoke

MADE FROM
HICKORY

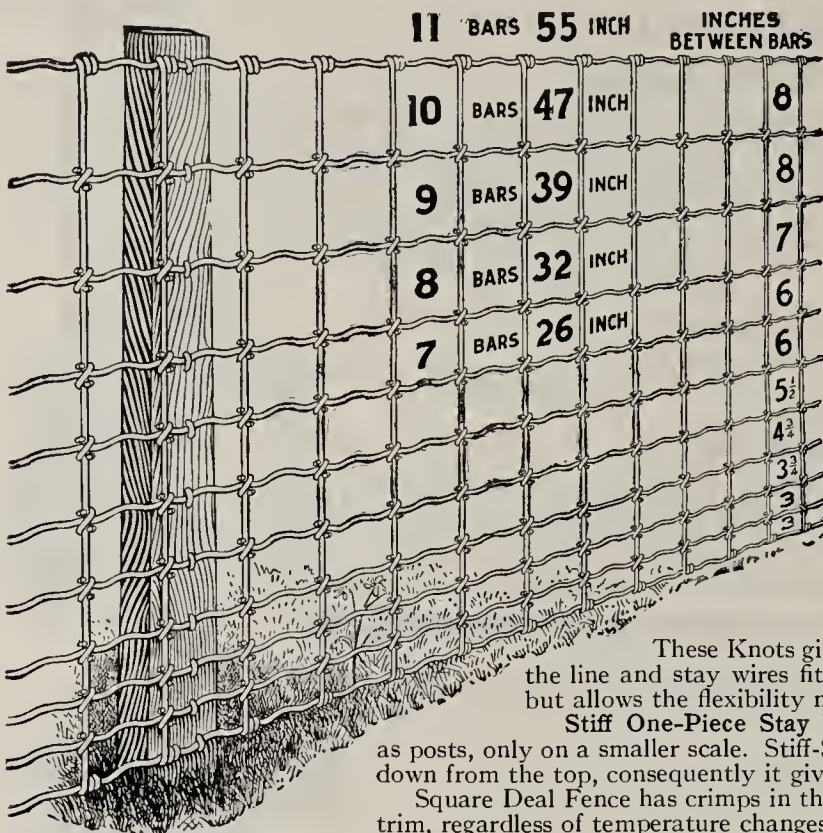


No. 631. 1¾ inches x 22 inches long, 85 cts.



No. 333. Disston Wood Saw

Hardwood frame, double braced, 30-inch Champion tooth blade. Painted red. \$1.40, postpaid \$1.55.



Square Deal Red Brand Farm Fence

This Fence, made by the largest independent Fence mills in the world, is guaranteed to outlast any other Fence of equal gauge, under the same conditions. It has quality plus, yet it costs no more than standard market prices.

Red Brand Fence proved itself "definitely superior to any competing fence" in a scientifically conducted weather-test of 45 different makes and sizes of Fence from all leading manufacturers and mail-order houses.

The outstanding showing of Red Brand Fence in this test was possible only because "Galvannealing," the patented process by which it is protected from rust, is more than mere galvanizing. An extra process is performed in great heat-treating ovens which fuses the zinc right into the steel wire. The heavier and better bonded coating gives longer protection against rust than ordinary galvanizing.

Even after all the zinc is gone, Red Brand Fence wire resists rust because it contains 20 to 30 points copper.

The Square Deal Knot

These Knots give the strongest grip with the least amount of wire. Crimps in the line and stay wires fit together within the Knot. This absolutely prevents slipping, but allows the flexibility necessary to fit hills and hollows without buckling.

Stiff One-Piece Stay Wires used in Square Deal Fence perform the same duties as posts, only on a smaller scale. Stiff-Stay Fence is not easily rooted up from the bottom or pressed down from the top, consequently it gives longer and more satisfactory service.

Square Deal Fence has crimps in the line wires that give it an elastic tension and keep it tight and trim, regardless of temperature changes.

PRICES PER ROD

No. 11. Top and bottom wire No. 9, intermediate and stay wires	No. 11. Put up in 20-rod rolls	Per rod
No. 832. 32 in. high, 8 bars, 6-in. stays, weight 9.8 lbs....		\$0 46
No. 939. 39 in. high, 9 bars, 12-in. stays, weight 8.8 lbs....		39
No. 1047. 47 in. high, 10 bars, 12-in. stays, weight 9.9 lbs....		44
No. 1155. 55 in. high, 11 bars, 12-in. stays, weight 11.0 lbs....		49
In 10-rod rolls 25 cts. per roll extra		

No. 9. All wires including stays No. 9. Put up in 20-rod rolls	Per rod
No. 636. 36 in. high, 6 bars, 12-in. stays, weight 9.4 lbs., spaced 6.6, 7, 8, and 9 inches between bars.....	\$0 39
No. 832. 32 in. high, 8 bars, 6-in. stays, weight 14.9 lbs....	65
No. 1047. 47 in. high, 10 bars, 12-in. stays, weight 14.6 lbs....	61
No. 1155. 55 in. high, 11 bars, 12-in. stays, weight 16.4 lbs....	68
In 10-rod rolls 25 cts. per roll extra	
Staples. 1 1/4-inch. 5 cts. per lb.	

We have listed above the most popular sizes and styles which we carry in stock at Pittsburgh. We will send on request a complete catalogue of Square Deal Fences, any of which can be shipped direct from factory.

Angle Steel Fence Posts

These have been designed for general farm use where a light-weight post is desired. They are easy to handle, easy to drive, strong and serviceable, and are rolled from specially selected steel. The Line Posts are 1 1/4 x 1 1/4 x 5/16 inches. One side of the angle is punched with holes 1/8 inch wide by 5/8 inch high, spaced 2-inch centers. Fence or barbed wire can be easily attached with ordinary fence staples. They are painted with a special steel paint that is baked on under high temperature. The Line Posts are equipped with patented slit-wing anchor plate. The slit wings, in the anchor plate, pack the soil against the sides and behind the post, affording still greater anchorage.

Line Posts

	Each	100 or more Each
5 ft. 6.2 lbs.....	\$0 27	\$0 24
6 ft. 7.3 lbs.....	31	28
6 1/2 ft. 7.8 lbs.....	33	30
7 ft. 8.4 lbs.....	35	32
7 1/2 ft. 9.0 lbs.....	37	34
8 ft. 9.5 lbs.....	39	36

End and Corner Posts

Made of 2 1/2 x 2 1/2 x 1/4-inch angle with rounded corners. Designed to be set in concrete. End Posts have one brace; Corner Posts, two braces.

	Each
End Posts. 7-foot; weight 52.5 lbs.....	\$2 25
7-foot, 8-inch; weight 57.0 lbs.....	2 50
Corner Posts. 7-foot; weight 84.0 lbs.....	3 60
7-foot, 8-inch; weight 89.0 lbs.....	3 80

Banner Steel Fence Posts

These Posts outlast three ordinary wood posts. No holes to dig—no setting—no tamping. Drive over 300 in a day.

Built like a railroad rail—the strongest form of fence-post construction known.

With their large split-wing patented anchor plates will root firmly into the ground as driven and hold the fence securely in line.

A continuous series of lugs are rolled along both sides of the face of the post and spaced every 3/4 inch.

Ideal Posts are finished with a heavy coat of a special steel paint with unusual high preservative qualities that is baked on under a high temperature.

Fence wire is fastened with special hump clamps which are easily attached. The clamps come formed to fit snugly around the post. Just place them in position and bend arm back over stem of post. An ordinary pair of pliers or a hammer will do the trick. Seven clamps furnished free with each post. No staples to buy.

	Each	100 or more Each
5-ft. (weight 7.3 lbs.).....	\$0 34	\$0 30
6-ft. (weight 8.6 lbs.).....	39	35
6 1/2-ft. (weight 9.3 lbs.).....	42	38
7-ft. (weight 9.9 lbs.).....	44	40
7 1/2-ft. (weight 10.6 lbs.).....	47	43
8-ft. (weight 11.3 lbs.).....	49	45

SEE PAGE 125 FOR GALVANIZED POSTS



American Galvanized Steel Fence Posts

"The Post Without a Fault"

The American Galvanized Post surpasses all others in Strength—Durability—Economy.

The cylindrical shape gives greater resistance at the ground line and makes it easier to drive the post. The Line Posts are a straight cylinder $1\frac{3}{4}$ inches in diameter made of $14\frac{1}{2}$ gauge metal. Tongues are placed $1\frac{1}{2}$ inches apart and may be bent up or down to hold fence wire. Posts are galvanized after being formed and punched, all parts being protected by galvanizing. Line Posts, when driven, open automatically, providing self-anchorage.

Twenty-five years of actual service is convincing proof of the lasting quality of the American Post. Nothing adds more to the appearance of a farm than fence stretched on neat, uniform, and slightly steel posts.

For woven-wire fence, barb wire, and plain wire.

Galvanized Line Posts

	Each
6-foot; weight 8.4 lbs.....	\$0 54
6½-foot; weight 9.1 lbs.....	58
7-foot; weight 9.8 lbs.....	62
7½-foot; weight 10.5 lbs.....	67
8-foot; weight 11.2 lbs.....	71

End and Corner Posts

Made of No. 8 gauge steel galvanized after forming. Top and bottom diameter $2\frac{1}{2}$ inches. The end or gate post has one brace, the corner post has two braces. Shipped complete with all fittings. Designed to be set in concrete.

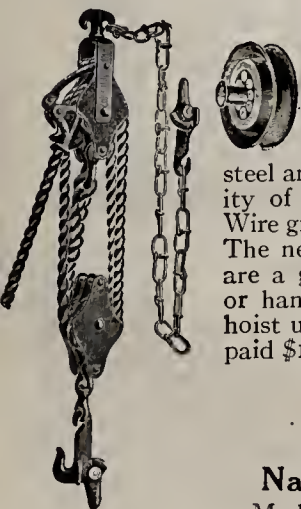
	Each
End or Gate Posts. 7-foot; weight 48.3 lbs.....	\$2 75
7½-foot; weight 51.9 lbs.....	3 00
8-foot; weight 54.5 lbs.....	3 25
Corner Posts. 7-foot; weight 67.7 lbs.....	4 00
7½-foot; weight 72.7 lbs.....	4 25
8-foot; weight 75.9 lbs.....	4 50

All End and Corner Posts shipped direct from factory.

Extras

	Each
Ornamental Tops. For Line Posts.....	\$0 20
For End and Corner Posts.....	40
Driving Caps. For Line Posts.....	40

Royal Blue Wire Stretcher



The Royal Blue Wire Stretcher and Hoist has no equal of its kind in simplicity, etc. It is a first-class roller-bearing Stretcher having large sheaves, each revolving on ten hardened steel bearings. Made entirely of best grade of steel and malleable iron. Reeved with best quality of $\frac{3}{8}$ -inch rope, 16 feet to each Stretcher. Wire grasps are positive and hold the wire firmly. The new swiveling features at top and bottom are a great convenience when using as a hoist or handling "twisty wire." Can be used as a hoist up to 1,000 pounds capacity. \$1.75, postpaid \$1.95.



National Single Wire Stretcher

Made of malleable iron. Grips firmly and easily hooks over any style of steel or wood post.

It is just what you want for stretching barbed and plain wire. \$1, postpaid \$1.15.

Special Barb Wire

Our Special Barb Wire is made of No. 14 galvanized, strong steel wire, and has a breaking strength of 1,000 pounds. The barbs are short and humane.

80-rod spool

Two-Point Cattle. Barbs about 5 inches apart.....\$2 10
Two-Point Hog. Barbs about 3 inches apart..... 2 25

Regular Barb Wire

Made from No. 12 galvanized wire. We can furnish in different styles as follows:

80-rod spool

Two-Point Cattle. Barbs about 5 inches apart.....\$2 75
Two-Point Hog. Barbs about 3 inches apart..... 2 95
Four-Point Cattle. Barbs about 5 inches apart..... 2 95
Four-Point Hog. Barbs about 3 inches apart..... 3 15

If preferred we can furnish above in even weight 100-pound spools at \$3.45 per 100 pounds.

Galvanized Plain Wire

100-lb. coil

No. 9. 1705 feet in 100-lb. coil. 10-lb. coil 60 cts.....\$3 30
No. 10. 2057 feet in 100-lb. coil..... 3 35
No. 11. 2582 feet in 100-lb. coil..... 3 40
No. 12. 3369 feet in 100-lb. coil. 10-lb. coil 60 cts..... 3 50

Galvanized Coil Spring Wire

No. 9. 1705 feet in 100-lb. coil. Price per 100 lbs. \$3.40.

Special prices will be quoted on any of the above Wire in ton or half-ton lots

Fence Staples

Galvanized. 1 or $1\frac{1}{4}$ -inch. Lb. 6 cts., 100-lb. keg \$3.90.
Polished. 1 or $1\frac{1}{4}$ -inch. 100-lb. keg \$3.65.

Wire Nails

100-lb. keg

20d Common Nails.....\$3 10
10d Common Nails..... 3 25
9d Common Nails..... 3 30
8d Common Nails..... 3 35

Prices on other sizes quoted on request. Prices subject to change without notice.

The Townsend Wire Stretcher

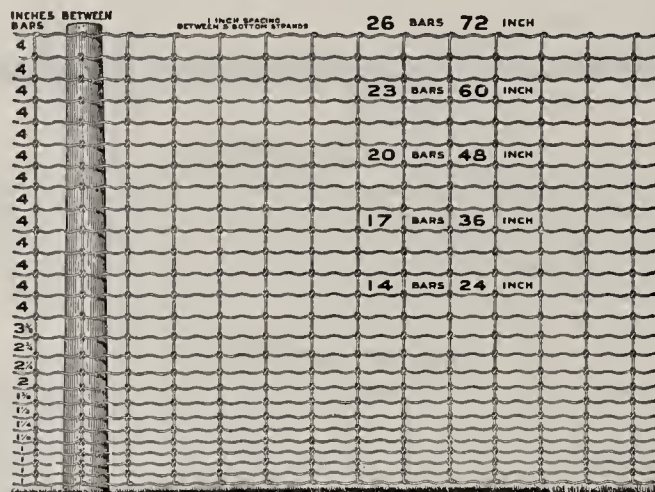


This is made with a wooden lever or handle 3 feet in length, to which is attached malleable iron pinchers, into which are riveted serrated steel grips; warranted not to slip. It is a substantial and very durable implement. It stretches large-meshed woven wire much better than most of the Stretchers which are made especially for this purpose, and it works equally well on plain, twisted, and barbed wire. For use on wood posts, \$1.75; for use on steel posts, \$1.90. Postage extra, 15 cts.



Champion Ash Sifter

Inexpensive and ideal for sifting ashes under any size furnace grate. Draft removes all dust—keeps basement clean—saves coal. Scoop $8\frac{1}{2}$ x 14 inches; all wire construction; 36-inch handle. \$1, postpaid \$1.20.



Square Deal Poultry and Garden Fence

Identified by the "Red Brand" marking with the top line painted red

This is the ideal Poultry Fence because it will turn the smallest chick, also keep out the small varmints that ravage the chicken-pens. The first five line wires at the bottom are only 1 inch apart.

THE NON-SLIP KNOT. The stiff picket-like stay wires used in building Square Deal Poultry Fence are attached to the line wires with the famous Square Deal knot.

Square Deal Poultry Fence requires no top and bottom boards, and fewer line posts, to keep it erect and trim. Thus it costs, erected, much less than poultry netting.

The top and bottom wires are No. 11 gauge with No. 14½ gauge filler wires.

Prices per 165-Foot Roll

No. 1736. 36 inches high, 16 bars.....	\$4 75
No. 2048. 48 inches high, 19 bars.....	5 85
No. 2360. 60 inches high, 22 bars.....	6 75
No. 2672. 72 inches high, 25 bars.....	7 80

Staples for the above, 8 cts. per lb.

Cyclone Flower-Bed Border

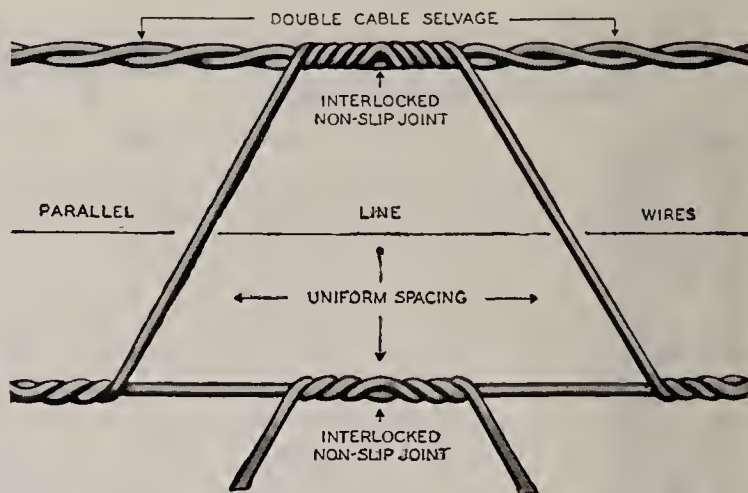
For flower-beds, lawns, terraces, etc., Cyclone Flower-Bed Border affords very necessary protection. At the same time it imparts a neat and well-kept appearance to the premises. Easily installed and will conform to any size or shape of flower-bed. Extensively used for paths and walks.

Is ordinarily used without supports but can be erected on any wood or steel support. Height 22 inches. 150-foot roll \$10.50; cut lengths, 9 cts. per lineal foot.



Green Angle Lawn Protector Posts

A smart, trim Post as sturdy as it is good-looking. Three feet in length—2 feet when set—and made of Angle Steel 1¼ by 1¼ inches. Pointed for easy driving and equipped with a 90-degree shaped anchor to insure rigidity. A permanent protection for lawns, flower-beds, gardens, etc. 12 Posts and 100 feet of wire strand \$3; Post only, 20 cts. each.



U. S. Poultry Fence

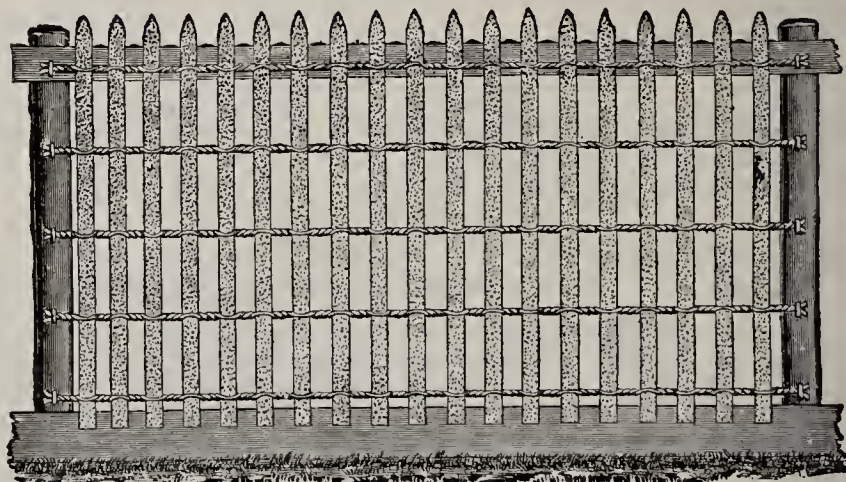
Compare this modern Poultry Netting with any other on the market. See how uniformly it is made! Note that, as in farm fence, the line wires run parallel! Note, too, how the interlocking hinge joints lock these line wires together so securely that they cannot slip, spread, or unravel! This superior, modern construction gives U. S. Poultry Fence that extra stiffness which prevents sagging, and does away with top rail and baseboard. U. S. Poultry Fence, because of its strength and uniformity, is in demand for poultry-yards, tennis-courts, baseball backstops, playgrounds, gardens, kennels and cages.

Heights 1 to 6 feet. *Galvanized after weaving.* Put up in 150-foot rolls. 2-inch mesh made of No. 19 gauge wire; 1-inch mesh, No. 20 gauge wire.

Price per 150-Foot Roll

Height	2-in. mesh	1-in. mesh	Height	2-in. mesh	1-in. mesh
1 foot.....	\$1 35	\$2 50	3 feet.....	\$3 30	\$6 25
1½ feet.....	1 90	3 60	4 feet.....	4 40	8 35
2 feet.....	2 45	4 60	5 feet.....	5 50	
2½ feet.....	2 90	5 50	6 feet.....	6 50	

Staples, 8 cts. per lb.

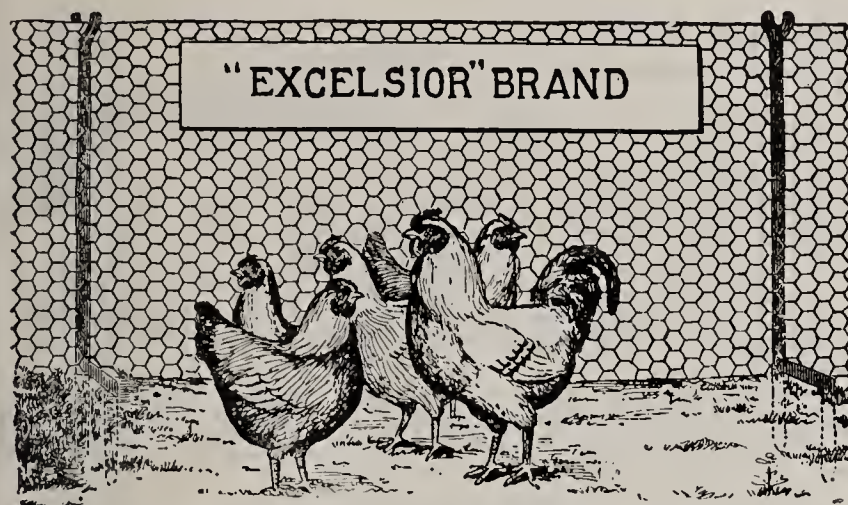


Combination Picket Fence

This popular Fence, for gardens, yards, vacant lots, etc., is made of hardwood pickets 1½ inches wide, ½ inch thick, and 4 feet long, woven together, 2 inches apart, with five cables of No. 12 heavy galvanized wire, pointed at top with neat Gothic points. The finish is far superior to that ordinarily used. Instead of using a cheap solution of Venetian Red, which soon washes off, leaving the picket exposed to the weather, we use a red mineral preservative, applied boiling hot, which makes a very durable, attractive and preservative finish. While the illustration shows the fence with the rail at top and board at bottom, neither of these is necessary.

100-foot Roll, 4 ft. high.....	\$10 00
50-foot Roll, 4 ft. high.....	5 50

Cut lengths 12 cts. per ft.



American Poultry-Yard Gates

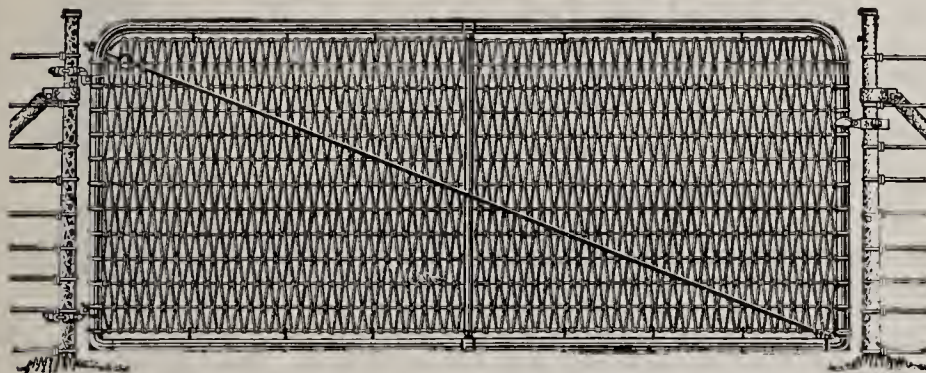
American Steel Gates, always efficient and well designed, have been improved both in structure, finish and operation. The tubular steel frames combine great strength, durability, and beauty. Gates and fittings are thoroughly galvanized.

American frames are covered or filled with a 2-inch mesh fabric of truss form, which not only proves a barrier to the smallest animals while lending bridge-like rigidity and strength, but also makes the gates unclimbable. The combination of the frame and the truss filling produces the highest type of fence gate, answering every requirement of good engineering practice.

PRICES

	Each
For 3-foot opening, 42 inches high; weight 19 lbs.....	\$3 10
For 3-foot opening, 50 inches high; weight 21 lbs.....	3 30
For 3-foot opening, 58 inches high; weight 23 lbs.....	3 50

Above prices include fixtures for wood posts. For fixtures for steel posts, add 50c.



Above prices include fixtures for wood posts. For fixtures for steel posts, add 75 cts. F.O.B. factory if not in stock.

"Can't Sag" Gates

"Can't Sag" Gate 52 inches high made of five 6-inch boards spaced as follows from bottom to top: $2\frac{3}{4}$, $4\frac{3}{4}$, $7\frac{1}{4}$, and $8\frac{1}{4}$ inches apart.

"Can't Sag" Gates are neither all wood nor all steel but a happy combination of the two. They retain all good features of wood Gates and the advantages of steel Gates, but have none of the drawbacks of either. They last longer than any other Gate you can build or buy. They weigh only half as much as ordinary all-wood Gates and are far stronger than any steel, wire, or gas pipe Gate made. They "Can't Sag" even a quarter of an inch. Made of "C" finish, long-leaf pine and painted a rich orange color.

If a board breaks it doesn't let the Gate sag or fall down; you simply slip out the broken board and replace it with a new one and in five minutes you have another perfect "Can't Sag" Gate as good as new and repaired at the cost of one board and a few minutes' spare time. "Can't Sag" Gates are the neatest, trimmest looking Gates ever put up. 12 feet long, 52 inches high, \$9; 10 ft. \$8.

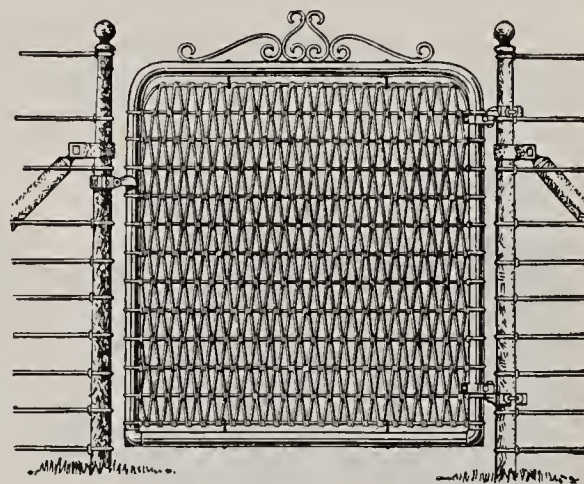
"Can't Sag" Gate Steels

For the farmer who prefers to furnish his own lumber and make his own Gate we furnish all irons necessary to build the Gate as shown above—everything except the boards. This includes 4 pairs of Angle Steel Uprights, Double Truss Braces, Hook Lag Screws, Hinges, Bolts, Washers, directions, etc. Price of set complete, \$4.

Diamond Mesh Poultry Netting

Made from No. 20 gauge wire and galvanized after weaving. Put up in 50- and 150-foot rolls

Height	2-inch mesh		1-inch mesh	
	50 ft.	150 ft.	50 ft.	150 ft.
1 foot.....	\$0 50	\$1 15	\$0 95	\$2 50
1 ½ feet.....		1 60		3 60
2 feet.....	85	2 10	1 75	4 60
2 ½ feet.....		2 50		5 50
3 feet.....	1 10	2 80	2 25	6 25
4 feet.....	1 45	3 75	2 95	8 35
5 feet.....	1 75	4 65		
6 feet.....	2 00	5 50		



American Single Drive Gates

With galvanized tubular steel frame, filled with a 2-in. diamond mesh galvanized fabric which is unclimbable

A strong, non-climbable, and economical farm Gate. Universally recognized for its simplicity and durability. In addition to upright tubular brace the frame is supported by a diagonal brace rod which keeps it firm and prevents sagging.

PRICES

	Each
For 10-ft. opening, 42 in. high; weight 56 lbs....	\$7 75
For 10-ft. opening, 50 in. high; weight 61 lbs....	8 60
For 10-ft. opening, 58 in. high; weight 67 lbs....	8 50
For 12-ft. opening, 42 in. high; weight 65 lbs....	8 75
For 12-ft. opening, 50 in. high; weight 71 lbs....	9 00
For 12-ft. opening, 58 in. high; weight 77 lbs....	9 25



Cyclone Lawn Fence

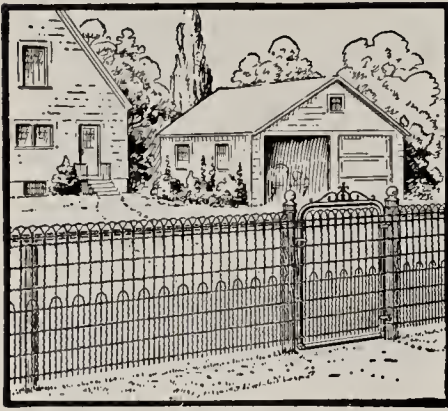
Makes beautiful home surroundings worth while

With Cyclone Fence enclosing your premises, you are assured success in your efforts to cultivate beautiful surroundings for your home. Flowers, lawns, gardens, trees, and shrubs have protection at all times against destructive outsiders.

Cyclone Fence is woven in beautiful, symmetrical designs that are attractive and artistic, yet unobtrusive. From a variety of handsome patterns, in standard heights, fencing may be selected to harmonize with the character of property to be enclosed.

STYLE "F" is our most popular ornamental fence for front yards, back yards or division fence. Pickets are of No. 9 heavily galvanized wire spaced 3 inches apart at top, $1\frac{3}{8}$ inches apart at bottom. Cables spaced 6 inches apart, except the two top cables, which are spaced $2\frac{3}{8}$ inches apart. Illustration shows Style "F" Fencing and Cyclone Galvanized Walk Gate.

STYLE "L-EXTRA" is a high-grade, moderately priced Fence. Specially adapted for back yards and division fencing. Pickets of No. 9 heavily galvanized wire are spaced 3 inches apart. Cables are of heavily galvanized wire spaced 6 inches apart, except the two top cables, which are spaced $2\frac{3}{8}$ inches apart.



PRICES PER 150-FOOT ROLL

Style "F."	36 in. high; per roll.....	\$18 00
Style "F."	42 in. high; per roll.....	20 00
Style "F."	48 in. high; per roll.....	23 00
Style "L-Extra."	36 in. high; per roll.....	13 00
Style "L-Extra."	42 in. high; per roll.....	15 00
Style "L-Extra."	48 in. high; per roll.....	16 50

PRICES IN CUT LENGTHS

Style "F" 42 in. will be furnished in any desired length under 150 feet at 17 cts. per lineal foot. Style "L-Extra" 42 in. at 12½ cts. per lineal foot.
Both styles of Cyclone Lawn Fence furnished either in woven or electric welded fabric.

Cyclone "L-Extra" Trellis

A very durable and artistic support for climbing vines and flowers; harmonizes with home surroundings. Retains its shape perfectly; is easily and quickly placed in position and will last indefinitely. It is made of corrugated No. 11 galvanized wire, spaced 4 inches apart; cables are of No. 13 galvanized wire.

PRICES

	150-foot rolls per roll	Cut lengths per lineal foot
18-inch width.....	\$11 00	\$0 10
24-inch width.....	12 50	11
30-inch width.....	14 00	12

Cyclone "45" Chain-Link Fencing

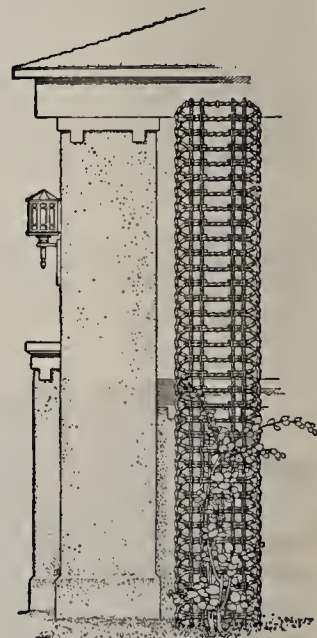
Cyclone Chain-Link Fencing makes a very strong and attractive installation. It can be installed on ordinary wood posts with a 2 x 4-inch top-rail or the steel posts shown on pages 124 and 125. It is made of No. 12 gauge all copper-steel wire, galvanized after weaving and will resist weather conditions longer than ordinary fencing materials. Furnished in one style only, 45 inches high and $1\frac{1}{2}$ -inch mesh. Can furnish any length desired. Price 25 cts. per lineal foot.

Cyclone Galvanized Walk Gates

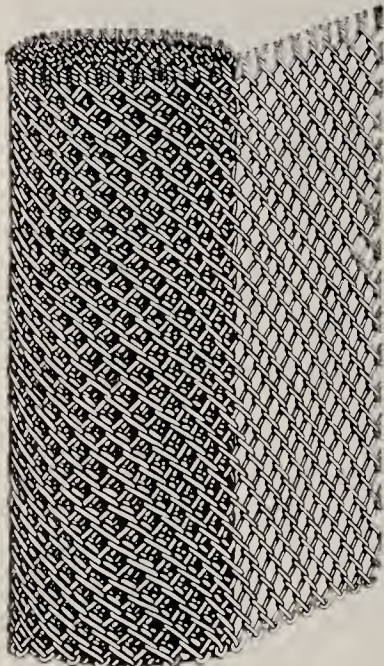
A handsome and practical Gate for all home purposes. The frame is heavy tubular steel, $1\frac{1}{2}$ -inch diameter, and galvanized. The fabric is built into the frame by stretcher-bar method—no holes drilled in the frame. The ornamental scroll top adds a pleasing artistic touch to Gate. These Gates are made for 3-foot openings, which means distance between posts with proper allowance for hinges and latch.

PRICES

Gate covered with Style "F" Fabric, 36 in. high, \$3.10; 42 in. high, \$3.25; 48 in. high, \$3.40. Gate covered with "45" Fabric, 48 in. high, \$4.25. Prices include fixtures for wood posts. Fixtures for tubular steel posts, \$1 extra. If steel-post fixtures are wanted, give outside diameter of posts.



"L-Extra" Trellis

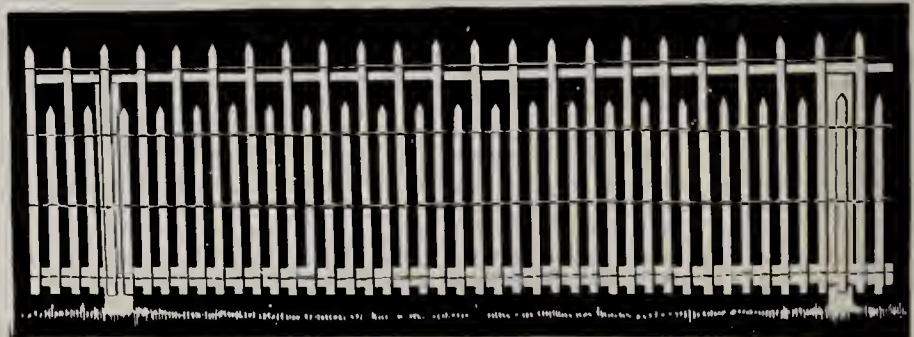


Cyclone "45" Fencing

Staggered-Top Lawn and Garden Picket Fencing

PROTECTION : BEAUTY : ECONOMY

The staggered tops, the Gothic pointed pickets, and rich snow-white finish of this Fence combine to give unusual charm and beauty. For yard or garden, it stands out in rich contrast with its green setting. No ornamental Fence of steel or wire could be more attractive. Its closely spaced pickets, tightly woven, shut out effectively even small intruders. With this Fence around your garden or yard, you have the best protection from intruders passing through, over or under. The longer pickets are 4 feet in length, and the intermediate pickets are 3 feet long, woven together with four cables of heavily galvanized wire. Pickets are $\frac{1}{2}$ x $1\frac{1}{2}$ inches, and spaced 2 inches apart. Price, 50-foot roll, \$8.50.





Brushes

No. 1932. 2-in. utility brush. 50c. ea.
No. 212. 2½-in. varnish brush. 70c. ea.
No. 1933. 4-in. house brush. \$1.65 ea.

Above Brushes are made of pure China bristle with solid center and vulcanized in rubber.

No. 1018. For applying Liquid Roof Cement and Ebonol. 75 cts. each.



SHERWIN-WILLIAMS PRODUCTS

New Roofs for Old

It is not necessary to re-roof your buildings when the felt, shingles, or composition roofing has dried out. You can reliven and add many years to your roof by using SHERWIN-WILLIAMS Roof Coatings.

SHERWIN-WILLIAMS Roof Coatings are made from combination of pitches and oils which will not run under the heat rays of the sun and will not check in the winter-time.



Sherwin-Williams Liquid Roof Cement

An effective combination of pitches, oils, and long asbestos fiber recommended for repairing different types of roofs, including tar, gravel, slag, concrete, slate, tile, tin, iron, composition, and felt. Apply it with a roofing-brush. Comes in black. Gal. can 80 cts., 5-gal. can \$3.75.

Sherwin-Williams Ebonol

Composition roofing, exposed metal-work, refuse-tanks, pipe-lines, and similar surfaces around the farm or factory are typical uses for this economical black utility paint. Priced so low you can't afford not to use it. 1-gal. can 80 cts., 5-gal. can \$3.75.

Sherwin-Williams Elastic Roof Cement

Just what you have been looking for to take care of that roof with leaky flashings and gutters. Splendid for filling holes—spread it with a trowel. It remains perfectly elastic, but does not run under hot sun or crack with cold. 1-lb. can 15 cts., 5-lb. can 60 cts., 10-lb. can \$1.05, 25-lb. can \$2.50.



THE PAINT
THAT MADE
THE RED BARN
FAMOUS

A Handsome, Well-Painted Barn Indicates a Prosperous Farm

You want your premises to reflect your ability as a good farmer. A poorly painted barn looks down at the heel and soon requires costly repairs in order to protect equipment and produce stored inside. SHERWIN-WILLIAMS Commonwealth Barn Paint keeps barns and cribs looking attractive. It is economical because it is not only sold at an unusually low price but is strictly a quality paint with excellent covering. ½-gal. can 95 cts., 1-gal. can \$1.65, 5-gal. can \$7.75.



PROTECTED ➡➡➡

Sherwin-Williams House Paint

Will go farther, look better, last longer, and less gallons are required to make a satisfactory job than any other House Paint on the market. 32 beautiful shades. Send for color-card. Gloss White, \$3.45, colors, \$3.25 per gallon.



Sherwin-Williams Floor Enamel

MAKES RICH, COLORFUL FLOORS

You might call Floor Enamel "liquid linoleum" because it produces a linoleum-like floor. Don't feel bad that your floor is too discolored to varnish—enamel it. Floors really need color as much as woodwork does. Rapid drying—no inconvenience. 1-pt. can 60 cts., 1-qt. can \$1, ½-gal. can \$1.85, 1-gal. can \$3.45.

Sherwin-Williams Porch and Deck Paint

Boats and porches both have to look their best at all times—they're so noticeable and both get such terrific foot-punishment. A clean-painted porch is mighty attractive and it keeps dirt from tracking into the house, too. No trick to apply it; simply brush it on and it's so quick drying there's no inconvenience. 1-qt. can \$1, ½-gal. can \$1.85, 1-gal. can \$3.25.

S-W Enameloid

Just picture a favorite piece of furniture decorated with some of these lustrous colors. Anyone can produce a good job with Enameloid. Ideal for woodwork, furniture, toys, etc. Dries fast and hard, stands hard service, washes easily. ½-pt. can 45 cts., 1-pt. can 75 cts., 1-qt. can \$1.30, ½-gal. can \$2.35.

S-W Semi-Lustre

Here is paint made for kitchens, bathrooms, laundries, basements—wherever walls get hard wear and need frequent washing. Hard as an enamel finish, Semi-Lustre washes easily because dirt can't penetrate. Use on both walls and woodwork. 1-pt. can 60 cts., 1-qt. can \$1, ½-gal. can \$1.75, 1-gal. can \$3.15.

S-W Mar-not Varnish

The finest Varnish made, and the most economical. Tough enough for floors; fine enough for woodwork. Rapid drying. 1-qt. can \$1.25, 1-gal. can \$4.35.

Owing to the unsettled condition of the price of raw material entering into Paint at the time our Catalogue goes to press, prices quoted above are subject to change without notice. If prices are reduced, customer will receive the benefit of the lower price; in case of advance, notice will be given before shipping.

We pay transportation on Paint to your station or post office

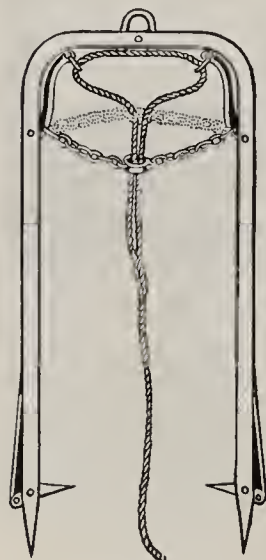
Myers Clover Leaf Unloader

Adjustable to Fit All Standard Makes
of Steel Track

The Myers Clover Leaf Unloader is built of malleable iron throughout. It is heavy and substantially made. Trucks are 16 inches long. Track wheels are large and revolve on $\frac{3}{4}$ -inch turned steel axles. Lock is composed of three parts and has no springs. This Unloader has wide-open mouth to receive fork pulley when approaching in any direction. Rope sheaves have longer hub than other Unloaders. Knocker and end stop furnished with each Unloader.

PRICES

- No. 118. Unloader. Complete as described above.....\$10 25
No. 824. Double Steel Track, as illustrated. Furnished in 6- and 12-foot lengths only. Per foot.... 23
No. 301. Steel Rafter Brackets, as illustrated. Each..... 05
No. 302. Steel Track Hanging Hooks, as illustrated. Each..... 18
No. 266. $\frac{3}{4}$ -inch Floor Hooks. Each..... 18



No. 1314

Myers Hay Forks

No. 1314. Myers Double Harpoon Fork. The strongest and stiffest Fork made. The flexible chain instead of a fixed cross-bar permits the Fork to enter the hay to a greater depth. \$3.

No. 773. Nellis Fork is constructed of extra-quality material throughout. This Fork is nicely finished. Point is sharp as shown in illustration. \$5 each.



No. 773

Myers Pulleys

No. 1120. Has 6-inch wood sheave, 1-inch loose pin, swivel eye. 70 cts. each.

No. 1133. The frame has heavy ribs and swivel eye and follows the rim of the sheave to a point nearly opposite the axle. Has 6-inch hard maple sheave. 65 cts.

No. 434. Reed Wood Frame Pulley. Has 1-in. loose pin, self-lubricating wood sheave, with steel hook. 65 cts. each.

No. 466. Not illustrated. Same as No. 434, with swivel eye. 65 cts.

No. 1124. Made entirely of malleable iron with iron sheave. This is the Fork Pulley for No. 118 Unloader. \$1.25 each.



No. 1133



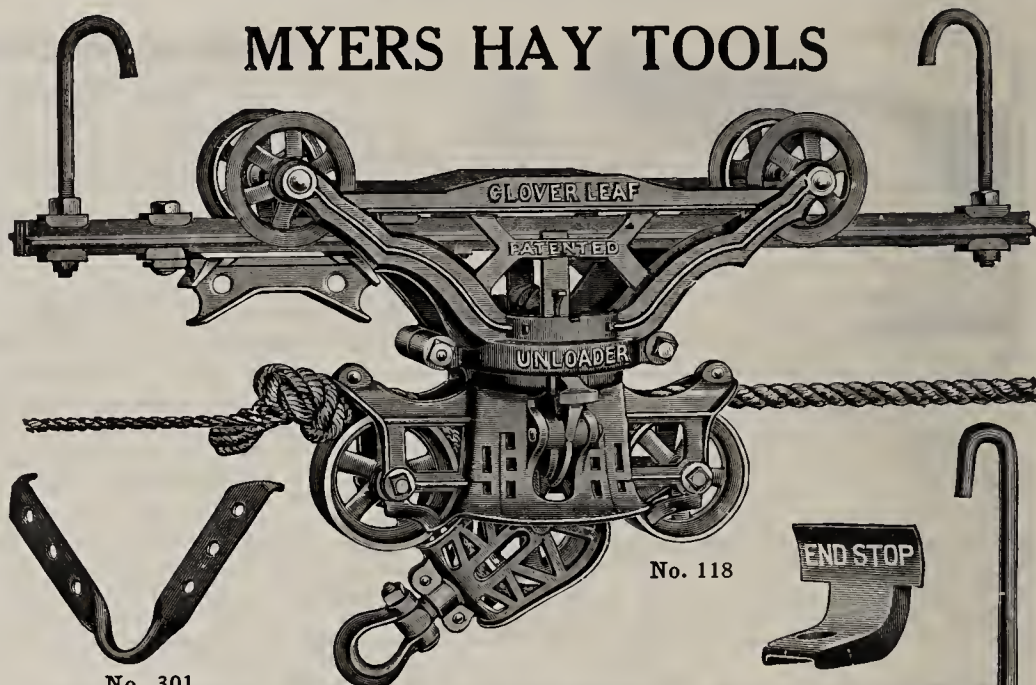
No. 1120



No. 1124



No. 434

MYERS HAY TOOLS

No. 118



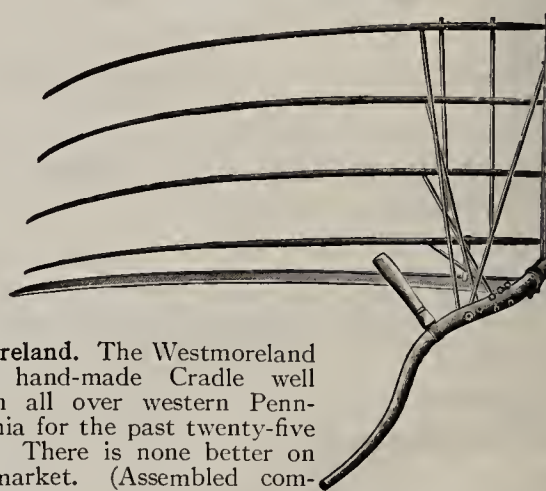
No. 301



No. 302



No. 824

Grain Cradles

Westmoreland. The Westmoreland is a hand-made Cradle well known all over western Pennsylvania for the past twenty-five years. There is none better on the market. (Assembled complete.) \$11.

Genuine Schwob. Machine-made Cradle, 4-finger (knocked down, packed complete in carton).....\$6 50
Extra Fingers, hand-made..... 65
Extra Fingers, oil-sprung..... 35

Rope

We handle the best grades of Manila and Sisal Rope; especially adapted for hay-fork outfits and other hard work where a strong, serviceable Rope is required.

H. & A. "Anchor" Manila Rope. Guaranteed to be stronger than Government Standards. It is carefully spun from extra-long, high-grade Manila fiber. It will long outwear ordinary Rope, will resist water and weather, and remains pliable and easy to work with under most adverse conditions.

SIZES AND PRICES PER FOOT

	$\frac{1}{4}$ -in.	$\frac{3}{8}$ -in.	$\frac{1}{2}$ -in.	$\frac{5}{8}$ -in.	$\frac{3}{4}$ -in.	$\frac{7}{8}$ -in.	1-in.
Manila	$\frac{3}{4}$ c.	$1\frac{1}{4}$ c.	2c.	3c.	4c.	5c.	6c.
Sisal	$\frac{1}{2}$ c.	1c.	$1\frac{3}{4}$ c.	$2\frac{3}{4}$ c.	3c.	4c.	$4\frac{1}{2}$ c.



Barrett's Everlastic Mineral-Surfaced Roofing

EVERLASTIC IS AN UNUSUALLY GOOD MINERAL-SURFACED ROOFING

Used on all kinds of steep-roofed buildings for Roofing, for flashings or valleys and as a starting strip for shingles it is unusually durable and trouble-proof. The felt base, asphalt saturant, and asphalt coating are of the very best quality—generously used. Every step in the manufacture is under continual laboratory control.

The surfacing is natural mineral in unfading colors, securely embedded so the Roofing does not require painting or staining.

Each roll contains 108 square feet and galvanized nails and cement for proper application. Detailed direction sheet in each roll. Furnished in either

Red or Green. Width of roll 36 inches. Weight 85 to 90 lbs. \$3 per roll; 10-roll lots, \$2.90 per roll.

Barrett's Vitex Smooth-Surfaced Roofing

Here is a Roofing that gives good service at a medium price—for steep-roofed buildings, for valleys, flashings, etc.

The base is a good-quality felt, thoroughly saturated, and then thickly coated with asphalt, refined in our own plants especially for use in smooth-surfaced roll Roofings. Both sides have medium corrugations and are surfaced with talc. Each roll contains 108 square feet and nails and cement for proper application. Detailed direction sheet in each roll. Width of roll 36 inches. Roll

Medium.....	\$2 35
Heavy.....	2 70

10-roll lots, 10 cts. per roll less.

Barrett's Tomahawk Smooth-Surfaced Roofing

A low-priced Roofing for temporary buildings, sheds, out-buildings, etc.

Tomahawk is made in the usual manner by saturating and coating dry felt with asphalt. Both sides are finished with broad corrugations and talc surfaced. Considering its low price, Tomahawk represents a very good value.

Each roll contains 108 square feet and nails and cement for proper application. Detailed direction sheet in each roll. Width of roll 36 inches.

	Roll
Light	\$1 40
Medium	1 70
Heavy	2 00

10-roll lots, 10 cts. per roll less.



The Keystone Hay Rack

Made of the very best material selected for the purpose. All pieces dressed and cut to exact size ready to put together. Bottom cross bars are 2 x 4 in. and are bored. Sills are 2 x 10 in. and top cross pieces 2 x 6 in. x 82 in. long. Top decking 1 x 6 in. stock and spaced, solid bottom between sills. The racks are treated with creosote and furnished complete with irons. Shipped knocked down. Wrench and hammer are only tools required to set up.

14 feet long.....\$25 00 | 16 feet long.....\$27 50

Shipped from factory, freight prepaid. Furnished to fit either 38- or 42-inch bolsters. In ordering please specify width of bolster.



No. 20

Banner Root-Cutters

These machines will cut and prepare beets, carrots, turnips, mangels, and all other roots and vegetables for feeding cattle, horses, sheep, and hogs. Roots make a very succulent food for stock but must be chopped before feeding, to prevent choking.

No. 20. Operates by hand. Capacity 30 bushels and up an hour.

Equipped with iron grating to sift soil from roots before reaching knives. A dependable machine in every respect. Price \$20.

No. 16. Supplied with balance-wheel, pulley, and crank, so it can be used by power or hand as desired. It is considerably larger than the No. 20. Weight about 150 pounds. Price complete, Pulley and Crank, \$30.

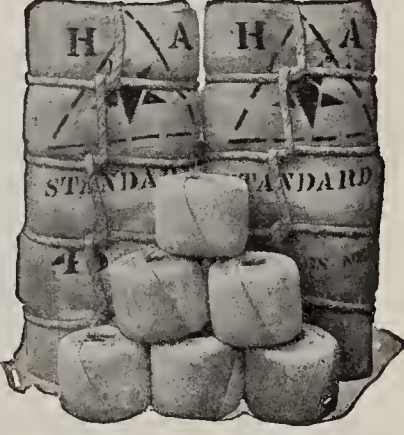
For prices of Root-Cutters for poultry, see page 157

H. & A. "Star Brand" Binder Twine

"Star Brand" Twine is evenly spun from the best fibers, is of full yardage and strength, and is used from coast to coast by farmers who claim it is never cut by insects.

H. & A. "Star Brand" Binder Twine is guaranteed to have the yardage claimed for it, to have ample strength for binding purposes, and to work satisfactorily in any properly adjusted binder.

We furnish both Sisal and Standard. 500 feet to the pound.



Write for prices, specifying quantity wanted

Baby Chicks

For many years we have made a specialty of Baby Chicks and can furnish all popular breeds. Also White Pekin Ducklings and Bronze Baby Turkeys.

Write for price-list

Blizzard Ensilage Cutters

The Blizzard is backed by 60 years of experience in building Ensilage Cutters. Quality of work, capacity, performance, safety, convenience, and durability are the factors by which the value of an Ensilage Cutter is determined, and the Blizzard meets every one of these requirements. The Blizzard is well known and is used and recommended by all leading farmers.

Space prevents enumerating the many features of the Blizzard. If you are interested in an Ensilage Cutter, write for a Blizzard catalogue which not only fully describes the Cutter but has helpful suggestions on ensilage and silo-filling. Be sure to see the Blizzard before you buy an Ensilage Cutter. **Made in Three Sizes. Prices on Request.**



No. 8 1/2

The "Ohio" No. 8 1/2 Feed-Cutter

The No. 8 1/2 is an excellent Cutter for anyone needing a small, easy-running machine for cutting all kinds of dry or green food for one or a few head of stock. It is well built and reasonably priced. The feed box is 38 inches long and has 25-inch fly-wheel. The framework is of good hardwood mortised, tenoned, and pinned. Has high-carbon steel knives, mounted on knife heads with sliding block for quick, accurate adjustment. The cutter bar is chilled iron and the patented feeding gears and rolls work automatically whether one stalk or an armful is being fed.

Capacity. Cuts one bushel of hay in thirty to forty seconds.

Length of Cut. Cuts 1/4-, 1/2-, 3/4-, and 1-inch lengths with two knives or double these lengths with one knife.

Pulley for Power. Choice of 8- or 10- x 3-inch pulley can be supplied. Weight, 175 pounds. With 2 knives, \$32; Pulley \$1.50 extra.

The Geneva Feed-Cutter

KNIFE ON FLY-WHEEL TYPE

The Geneva is adaptable to all kinds of green or dry roughage, hay, corn-stalks, clover, etc. The frame is of hardwood; bottom rails reinforced with steel rods. Joints are mortised and tenoned. Frame is made triangular, giving it a firm foundation on any surface. The knives are straight, flat, of the best quality, easily adjustable to the shear-bar, and can be removed, ground, and replaced easily.

No. 8. Has two 10-inch knives and is intended for hand-use only. It cuts five different lengths, 1/4, 1/2, 3/4, 1, and 1 1/4 inches, and the change can be made quickly. Price \$42.50.

No. 10. Has two 10-inch knives and is intended for both hand and power. It cuts five different lengths, same as No. 8. The gearing is covered to prevent accidents, and it is provided with a lever which not only throws it in and out of gear but reverses the motion of the rollers when desired. Price, with Crank Attachment and Pulley, \$50.

No. 12. Has two 13-inch knives and is intended for both hand and power. Cuts six different lengths, 1/4, 1/2, 5/8, 7/8, 1, and 1 3/4 inches. It has its gearing protected and also has a lever for controlling the rollers, by means of which they can be stopped or made to revolve forward or backward at will. Price, complete with Pulley, \$59.

Feed-Cutter for Poultry shown on page 157



Harvesting Machinery

Space does not permit detailed description of each machine in this Catalogue. Descriptive catalogue and prices will be gladly sent upon request. The machines we offer are made by old, established manufacturers, are strong and durable and up-to-date in every respect. Be sure to get our prices before you buy. All machines carried in stock. We welcome the opportunity to show them.

Avery Improved Champion Binders. This Binder has to its credit an unmatched record for durability, for easy pulling, and for getting the grain. The force-feed elevator, the special balancing sectors, and the relief rake are exclusive features which makes this Binder the champion of them all. Made in 6-foot, 7-foot, and 8-foot cut.

Avery Champion Improved Mowers. The high standing of the Avery Champion Improved Mower is the result of a century's experience building better farm implements. Besides being light-draft machines which have great cutting power, they are very strong, and easy to operate. Made in 3 1/2-foot cut for 1 horse and 5-foot and 6-foot cut for 2 horses.

Avery Champion Improved Self-dump Rakes. Here's a Self-dump Rake you are sure to approve. It is the last word in durability—in convenience—in efficiency. Has an effective locking device and trip found only on the Avery Rake. It is absolutely new in design and principle and is the result of hundreds of experiments and tests. Made in 8-foot, 9-foot, and 10-foot sizes.

Avery Champion Hay Tedders. Much of the feeding and market value of the hay crop may be lost between cutting and gathering. To cure evenly there must be a thorough circulation of air all through the hay. The Champion is designed to accomplish this work most effectively and rapidly. Substantially built and mechanically perfect in operation. Made in 6-fork and 8-fork sizes.

Moline Cylinder Hay Loader. Embodied in the Moline Cylinder Hay Loader are all of the improvements in Loader design. It is durably built and will give years of hard service. Steel parts replace castings; pulleys and wheels have replaceable boxings; the frame is of all-steel construction. These are the features that give long life and service. Furnished in 6-foot size and with fore-carriage.

The Huber Revolving Hay-Rake. Made of the best selected hardwood timber thoroughly seasoned. The teeth are square and are framed in the heads perfectly solid, thus making them less liable to come loose and break. Two sizes: 8-foot, 14 teeth, \$15; 9-foot, 16 teeth, \$16.

Avery Champion Side Delivery Rake and Tedder. This machine represents all the progress which has been made in the design and construction of up-to-date haying machinery. When used as a Rake the cylinder revolves in the direction in which the rake travels, delivering the hay in light, fluffy windrows on the left hand side. Shifting the lever reverses the direction of the cylinder for tedding.

Steel Wire Bale Ties. We make a specialty of furnishing Steel Wire Hay Bale Ties for baling hay, straw, waste paper, etc., to suit all the different sizes and styles of balers. We carry in stock at Pittsburgh for quick shipment the leading sizes of cross-head and single-loop Ties. Prices will be quoted on request.

STOVER HAMMER MILLS

Experiments conducted by agricultural experiment stations demonstrate some valuable facts tending to prove that it pays to feed ground grain to live-stock. Every ounce of grain or roughage you place in front of your live-stock that is not in condition to be eagerly consumed and properly digested is steadily taking away from you the price of a Stover Hammer Mill. Your feed-bill is probably one of your most costly items.

Reduce that cost and you have turned a loss into a profit. It is an accepted fact that animals refuse stalks, stems, and vines—not because they are not nutritious but because they are not easily masticated.

With a Stover Hammer Mill you can make better feeds at less cost by utilizing your home-grown feed-crops—eliminate waste of grain and roughage—grind at your own convenience without the bother of hauling to the custom mill. The Stover Hammer Mills are constructed of the best materials throughout by a company with

70 years' experience in manufacturing feed-mills.

These Mills are all of the same general design and construction; are all adapted for doing identically the same class of work, therefore, the principal difference is in the size, capacity, and power required for operation. All Mills except the No. 88 are equipped with a small grain-hopper and with adjustable slide and feed-auger. All models have cast-iron chills which assist materially in reducing grain and increasing capacities. Cyclone supports are adjustable for wagon-box or stacking discharge; blowers are of heavy cast-iron construction, operated from the main shaft. No. 92 is equipped with traveling feed-table, governor, and feed-regulating gears.

Two screens are regularly furnished with each Mill. Additional screens for finer or coarser grinding furnished at additional cost.

	Power Required	Speed R.P.M.	Width of Feed Opening	Screen Area	Capacity* Shelled Corn	Approx. Weight	Price
No. 88	10 to 20 HP	2250 to 2500	8 in.	245 sq. in.	2000 to 3000 lbs. per hour	490 lbs.	\$105.00
No. 91	15 to 30 HP	2250 to 2450	10 1/4 in.	320 sq. in.	3000 to 5000 lbs. per hour	575 lbs.	\$145.00
No. 93	30 HP and up	1900 to 2100	14 in.	520 sq. in.	3400 to 5700 lbs. per hour	1050 lbs.	\$275.00
No. 92	30 HP and up	1900 to 2100	14 in.	520 sq. in.	3400 to 5700 lbs. per hour	1525 lbs.	\$450.00

*Using 3/16-inch screen. Capacities are always governed by grinding condition of grain and power used.

Prices include blower and cyclone and are f.o.b. Factory.

Catalogue giving complete details will gladly be sent on request

BOWSHER GRINDING MILLS

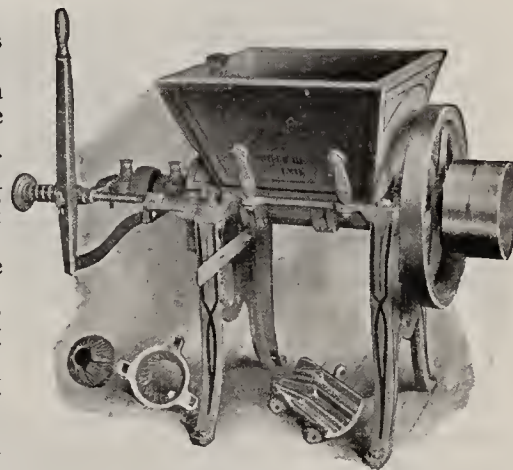
WRITE FOR SPECIAL CATALOGUE

These Mills represent the highest achievement in practical feed-mill construction. There is no skimping in quality of material or workmanship. The design includes valuable features which are found in no other Mill.

Ear-corn can be shoveled into the hopper without fear of bridging or choking, in the sizes designed for that work. By gates at the "eye," regulation can be had so the crushed material is fed to the grinders in proper amount to suit the power.

The Cone-shaped Grinders cause very little end-pressure, eliminating chances of hot-boxes, and securing for the Mill many advantages in the way of light-running qualities, large capacity, and economy of operation. Ample provisions are made against breakage, reducing the possibilities of damage to a minimum. In the words of a customer, "Your Mills are built for real service. They do not wear themselves out quickly due to excessive friction from high speed, and they drive very easily."

Size No. 0. This is the smallest Mill in the Bowsher line, but is as carefully and substantially built as the larger sizes and does an equal quality of work. It successfully feeds itself on ear-corn as well as on all kinds of small grain, oats, rye, barley, shelled corn, etc. It is equipped with cone-shaped grinders, the wooden relief lever, and many other advantages of the larger sizes. Capacity, 4 to 12 bushels corn on cob per hour. Power required, 2 to 4 horsepower. Without Elevator, \$36; with 3-in. short Elevator, \$51.



No. 0

Size No. 4. The No. 4 will grind ear-corn, with or without shucks, and all kinds of small grain, either alone or mixed with ear-corn, in any proportion desired. Has perfect regulation for coarse or fine grinding. Equipped with the cone-shaped grinders, wooden relief lever, divided hopper, etc. Capacity, 12 to 30 bushels corn on cob per hour. Power required, 8 to 12 horsepower. Without Elevator, \$80; with 4-in. Elevator, \$108.

Size No. 8. This Mill is constructed on practically the same principle as the No. 4, the size representing the chief difference. Both Mills will handle the same kind of work, but the No. 8 being larger, it has a larger capacity. Capacity, 20 to 50 bushels corn on cob per hour. Power required, 15 to 20 horsepower. Without Elevator, \$120; with 4-in. Elevator, \$148.

For description and prices of smaller Mills, see pages 158 and 159

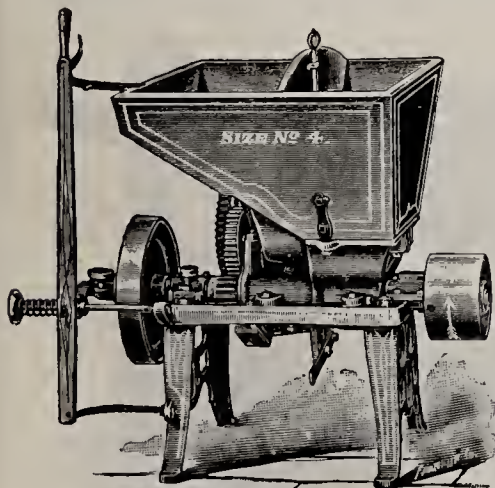
SPECIAL CATALOGUES

Special catalogue and prices of the following lines not shown in this catalogue will be sent on request.

Ann Arbor Hay-Presses
Martin Corn-Cribs

Farquhar Threshers and Saw-Mills
Rosenthal Corn-Huskers and Shredders

Regardless of what you want in the line of Farm Machinery, write us before buying.



No. 4



The No. 1-B Clipper Seed Cleaner

Clipper Grain and Seed Cleaner

The Clipper has no worthy competitor. The screen outfit is very complete for the work required and contains screens for wheat, oats, barley, rye, red and alsike clovers, alfalfa, sweet clover, timothy, millet, flax, peas, beans, cowpeas, soy beans, grading seed corn, cleaning clover containing buckhorn, plantain or ripple, cleaning timothy seed containing pepper grass and sorrel, also cane seed, milo maize, kaffir corn and separating corn from oats.

No. 1-B Clipper is a farm-size hand-mill that will clean 20 bushels of seed wheat per hour, or 10 bushels of clover or timothy seed per hour. Twelve screens, 19 inches wide and 22 1/4 inches long, go with the No. 1-B Mill. Price \$36.75. Power Pulley, 6-in. diam., \$1 extra.

The No. 2-B Clipper does exactly the same work as the No. 1-B. Its capacity per hour is 25 bushels grain and 15 bushels of grass seed. The screens (12 in number) are 6 inches wider than the No. 1-B screens. No. 2-B can be run easily by hand for cleaning grass seed, but for cleaning grain some kind of power should be applied—1/2 horsepower is sufficient. Price with 6-in. diam. Power Pulley, \$43.50.

The Jumbo Concrete Mixer

Have you ever figured out just how much time and money a good Concrete Mixer would save you?

A Jumbo, for example, with four men will do the work of from 8 to 10 men at hand-mixing, which means a substantial saving in labor, and a better mix can be obtained.

The Jumbo was designed, after months of careful study, by experienced engineers. Their object was to develop a Mixer, simple in design, and yet rugged enough to hold up for years of constant service.

No. 2 1/2, shown at the right, meets the requirements of the farmer or contractor who already has a power plant of one horsepower or over. It has a capacity of 2 1/2 cubic feet (one wheelbarrow load) and is capable of pouring from 27 to 45 cubic yards of concrete per day. It can be operated by one man but it will keep a crew of four men busy.

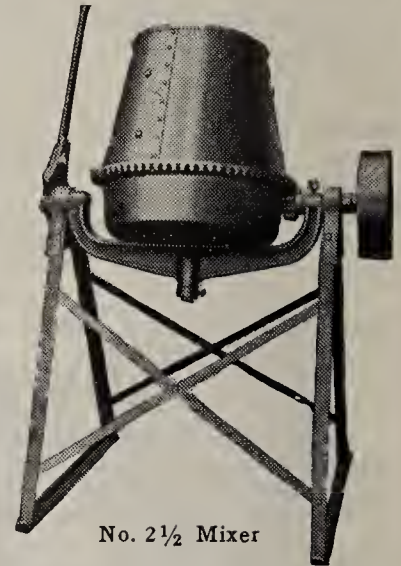
It is easy to load and easy to dump. Worked to capacity it will mix one batch a minute and mix it thoroughly. There will be no weak or porous spots in the finished job as is too often the case when the old unscientific method of hand-mixing is used.

Here are but a few of the jobs on which the Jumbo will show a profit: sidewalks, silos, foundations, cisterns, hog houses, barn floors, manure pits, storage cellars, fence posts, drinking troughs, rough plastering, septic tanks, and culverts.

A rugged reliable Mixer for the farmer and contractor. Price \$24.

Jumbo No. 2 1/2 FS Outfit is a complete mixing unit easily transferred from one job to another and ready for operation the minute it is placed in position. The Mixer is chain-and-sprocket driven, which means efficient and economical transmission of power. The outfit consists of the Jumbo Mixer, mounted on a portable truck with the 1 3/4 H.P. Jumbo Engine, equipped with High-Tension Magneto and engine housing. Price \$81.50.

Prices on larger outfits quoted on request. Ask for special circular



No. 2 1/2 Mixer



No. 2 1/2 FS Outfit

No. 4 Pony Wood Saw

Showing Ripping Table Attachment

This Saw is especially built for high power. Suitable for 3 to 6 horsepower engine. With 18-inch blade it will cut round wood 8 inches thick. Frame will admit 20-inch blade. Mandrel is 3 feet 5 inches long, 1 5/8-inch diameter, fitted for blades with 1 1/8-inch hole. Balance wheel is 12-inch diameter, weighing 30 lbs. Boxes 3 1/2 inches long; pulley, 5-inch face by 4 1/2-inch diameter. Table securely hinged to frame. Weight 110 lbs. Price, with 18-in. blade, \$16.50. Ripping Table, as shown in illustration, \$4.25 extra.

Catalogue and prices of larger sizes on request



Kramer Wagons

The Kramer Wagon has established and maintained for itself a name for being the best all-round farm, lumber, and general-purpose Wagon on the market. We must admit that this is due in some measure to the force of circumstances, for we are situated in the center of the Pennsylvania oil-fields, a section of the country far famed for its steep hills and rough roads, where inferior work and shoddy material cannot stand the wear and tear.

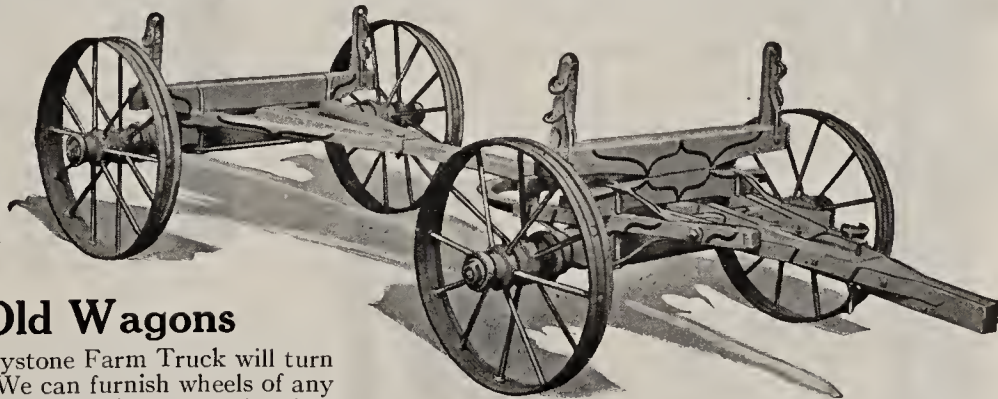


Kramer Wagons are furnished in either Wood Axle Cast Skein, Wood Axle Steel Skein, or the famous Tubular Steel Axle. They are also furnished either with Drop Tongue or Coach-Pole, Gear or Swing Brake and double Hound or Chaser Reach.

In one-horse style they are furnished with 2½-, 2¾-, or 3-inch Skein; in two-horse sizes, 2¾-, 3-, 3¼-, 3½-, 3¾-, and 4-inch Skeins. Special catalogue and prices furnished on request. In asking for prices please use the above specifications.

The Keystone Steel Wheel Farm Truck

The Keystone is carefully made of the best material—it is strong, convenient, and handy in every way. Axles are hickory fitted with 3¼ x 10-inch cast skeins. Gear parts are clipped, not bolted. Trussed axles. Round angle steel front hound, reinforced and strongly braced. Standards 10 inches high, mortised into bolster. All gear parts, with the exception of the axles, are made of select, thoroughly seasoned oak and are hand painted red, neatly striped in green. Steel wheels are standard pattern with grooved tires and staggered spokes. Track 5 feet, center to center of tires, with bolsters 42 inches wide between standards. Capacity, 4,000 pounds, for ordinary farm use. Price, with 28-inch front wheels, 34-inch rear wheels, 4 x ¾-inch grooved tire, doubletrees, neck yoke and gear brake, \$55. (Brake and Doubletrees not shown in illustration.)

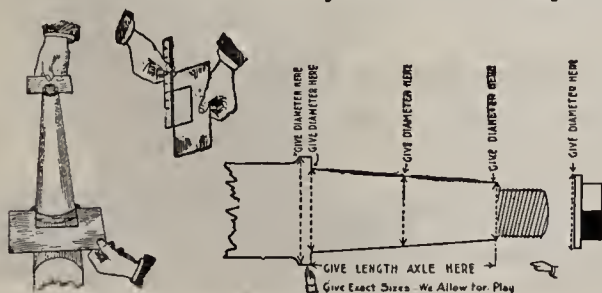


Steel Wheels to Fit Old Wagons

A set of Steel Wheels like those on the Keystone Farm Truck will turn an old wagon into a low, handy farm truck. We can furnish wheels of any height and tire size to fit any skein or axle. Popular heights and tire sizes are quoted below.

	3 x ½-in. or 4 x ¾-in. tire
26 in. height.....	\$4 50
28 in. height.....	4 75
30 in. height.....	5 00
32 in. height.....	5 50
34 in. height.....	5 75
36 in. height.....	6 25

Other heights and tire sizes quoted on request. In ordering, give measurements as shown in illustration. Prices are for one wheel in quantity of two wheels or more. If only one wheel is ordered, 10 per cent additional. Prices are f. o. b. factory.

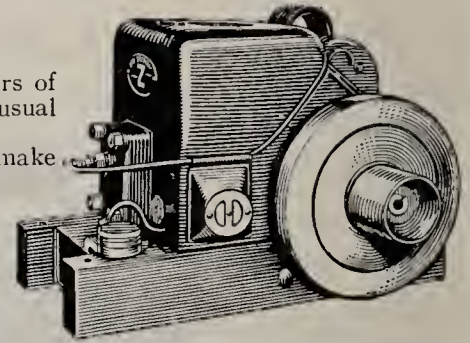


Fairbanks-Morse New "Z" Gasoline Engines

The New Fairbanks-Morse Self-oiling "Z" Engine is the perfected result of many years of Engine-development. Its simplicity of design, durability of construction, and freedom from usual Engine trouble makes it worthy of your closest consideration.

You will find many features that mean economy, power, and longer life, advantages that make the new Self-oiling "Z" Engine do your work more quickly, easily, and at lower cost.

Horse-power	Rated Engine Speed	Standard Diam.	Pulley Face	Shipping Weight	Price
1½	1,500 R. P. M.	3½ in.	3 in.	160 lbs.	\$59 00
3	800 R. P. M.	6 in.	4 in.	305 lbs.	93 00
5	600 R. P. M.	10 in.	6 in.	490 lbs.	125 00
7½	550 R. P. M.	12 in.	6 in.	900 lbs.	190 00



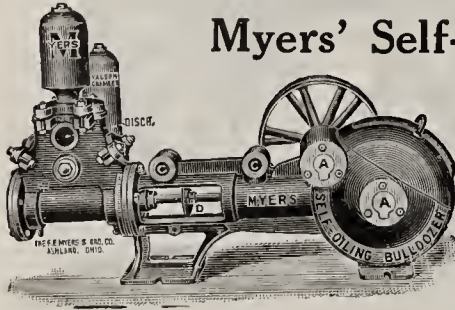
1½ Horse-Power Type "Z" Engine

Fairbanks-Morse Type "R" High-Tension Magneto regular equipment on all sizes.

The rated speed of the 1½-H. P. Engine can be reduced to 1,100 r. p. m. by means of the speed-controller on the Engine. The speed of the slow-speed drive-shaft, which operates at half Engine-speed, can similarly be reduced from 750 to 550 r. p. m. When operating below rated speed, the horse-power of the Engine is reduced in direct proportion to the reduction in speed.

The rated speed of the 3-, 5-, and 7½-H. P. sizes can be reduced approximately 100 r. p. m. by means of the speed-controller. Here, likewise, the horse-power delivered is reduced in direct proportion to the decrease in speed.

Special catalogue on request.



Myers' Self-Oiling Bulldozer Power Pump

Continuous Performance 24 Hours a Day Without Attention.

A single-cylinder, double-acting Power Pump. In the Myers, double-acting many features that are not found in other Pumps. The large gear and pinion are machine-cut from the solid—the gear is cast-iron and the pinion steel. From the oil-reservoir in the base, oil is carried by the main gear to the highest parts of the Pump, and by a system of channels distributed to all moving parts and returned again to the reservoir.

Has 2½-inch, brass-lined cylinder in one piece, attached to the power end by heavy bolts. Suction and discharge valves are easily accessible for inspection and repair without disturbing pipe connections. Suction and discharge piping may be taken from either side.

No. 912. Maximum capacity, 540 gallons per hour at pump. 1¼-in. suction and discharge, 12 x 2 in. tight and loose pulley. Power required, 2 H.P. \$53.

Ask for special catalogue and prices of larger sizes

Wood Pumps

Size 6 x 6 in.;
3½-in. cylinder

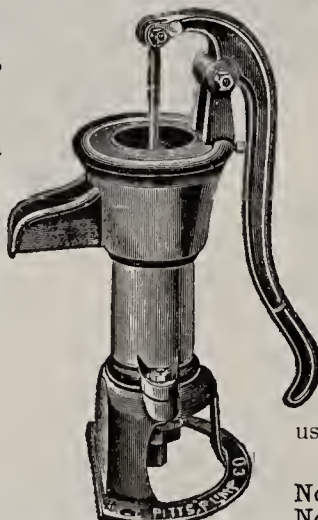
	Unlined	Porcelain Lined
6-ft. .	\$7 75	\$9 75
7-ft. .	8 50	10 50
8-ft. .	9 25	11 25
10-ft. .	11 25	13 25

Tubing for above pumps, 4 x 4 in., in 8-, 10-, and 12-foot lengths, 27 cts. per ft.

Wood Pump

Couplings with bands for 4x4-in. tubing. 80 cts. each.

In ordering give depth from top of platform to bottom of well. Prices on other sizes of Wood Pumps quoted on request.



Pitcher Spout Pump



Rex

Iron Pumps Rex Deep-Well Lift Pump

Our new pattern anti-freezing, constant-flowing Deep-Well Pump, fitted with reversible handle and improved compound handle rest. While the Pump is designed for deep wells, yet it can be used in cisterns or wells as deep as 150 feet. Furnished with either 2½- or 3 x 10-inch cylinders at the following prices:

With iron cylinder.....	\$9 50
With brass-lined cylinder.....	11 00
With brass body cylinder.....	12 00

If wanted complete with 1¼-inch galvanized pipe and ¾-inch galvanized steel rod, add to above prices 18 cents per foot for depth of well.

New Fountain Double Acting Force and Lift Pump

The New Fountain is the simplest and most efficient deep-well pump on the market. It has a double air-chamber which enables the pump to throw an absolutely solid stream, just like a hydrant. Has smooth bore cylinder and brass valve seat; made to face the front or side by simply loosening set screw at top. It will go in hole as small as 4¾ inches. The upper cylinder is brass lined. Anti-freezing.

Furnished with either 2½- or 3 x 12-inch cylinders at the following prices:

With brass-lined cylinder.....	\$16 50
With brass body cylinder.....	17 50

If wanted complete with 1¼-inch galvanized pipe and ¾-inch galvanized steel rod, add to above prices 18 cents per foot for depth of well.



New Fountain

Pitcher Spout Pump

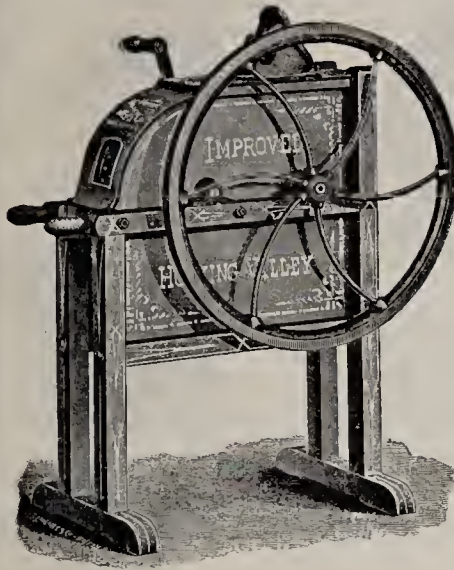
Has smooth-bore cylinder and brass valve seat, with revolving top, allowing lever to be placed at any desired position, and may be used successfully in cisterns or wells as deep as 25 feet.

PRICES

- No. 2. 3-inch cylinder, polished iron, \$2.25; brass lined, \$3.75.
No. 3. 3½-inch cylinder, polished iron, \$2.50; brass lined, \$4.25.
Galvanized Pipe. 1¼-inch, cut to length and threaded, 15 cts. per ft.

Hocking Valley Corn Shellers

ONE-HOLE SHELLER



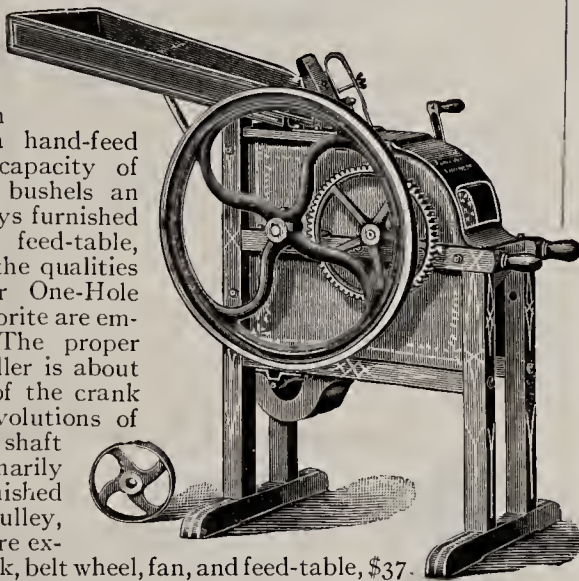
The Hocking Valley One-Hole Sheller is the standard Sheller with which all others are compared. It fully deserves all its popularity. It is carefully made of the best material that can be gotten, and is always perfectly satisfactory in its working. It is furnished either with or without fan, feed-table, and pulley, and has a capacity of from 20 to 25 bushels an hour.

PRICES

With fan.....	\$17 75
Without fan.....	15 85
Feed-table, extra..	1 25
Clamp pulley, extra.....	1 25

Two-Hole Sheller

The Hocking Valley Two-Hole Sheller is intended to be used either by hand or with power. It is a hand-feed Sheller with a capacity of about 35 to 40 bushels an hour, and is always furnished with crank, fan, feed-table, and pulley. All the qualities which make our One-Hole Sheller such a favorite are embodied in it. The proper speed of the Sheller is about 100 revolutions of the crank shaft, or 300 revolutions of the balance wheel shaft a minute. As ordinarily sent out, it is furnished with an 8-inch pulley, and both shafts are extended. With crank, belt wheel, fan, and feed-table, \$37.

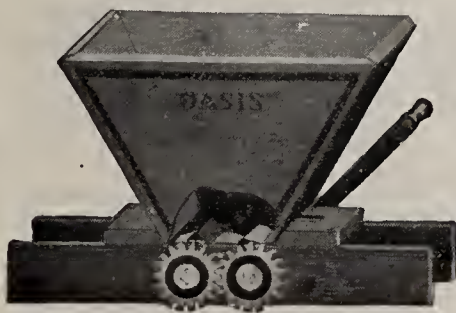


Black Hawk Corn Sheller

The Black Hawk Corn Sheller has enclosed hopper and separator. This prevents scattering of the shelled corn. A wonderfully fast and easy running Sheller. Instantly fastened to barrel or box by two large strong clamps with wing nuts. For illustration, see page 159. Price \$2.75, postpaid \$3.15.

No. 18 Oasis Fruit Crusher

The No. 18 was designed to meet the requirements of the user who needs only a small, low-priced, quality Crusher. It does the work and is well worth the money. Equipped with two six-pointed star-shaped iron rolls 5 inches long. The hopper, made entirely of wood, holds a half bushel, and is made to accommodate a standard size grape-box. It is attached to the wood frame by two small lugs and is easily and quickly removed for cleaning. Price \$4.75.



Hocking Valley Cider Mills

Equipped with wood-roll grinding cylinder—the most efficient all-purpose grinding device made. Guaranteed to be entirely satisfactory in execution, ease of operation, capacity, durability, and finish. Manufactured from the best materials obtainable by skilled workmen. Bearings bored and reamed to machine fit. All cross rails reinforced with steel tie rods. Hardwood slats riveted at both ends, not nailed. All joints mortised and tenoned. Bottom pressing head mortised, tenoned, and gained. Special Acme Thread, die-cut steel screw. Bearings bolted to side rail. Laminated hardwood cylinder, grain opposed. Crucible steel serrated knives. Mills furnished with plain tubs at prices named.



Bantam Mill. 1 tub....	\$19 50	Medium Mill. 2 tubs..	\$31 50
Junior Mill. 2 tubs....	26 00	Senior Mill. 2 tubs....	45 00

Hocking Valley Cider Mills with Iron Grinding Cylinder

Bantam Mill. 1 tub....	\$17 50	Medium Mill. 2 tubs..	\$27 00
Junior Mill. 2 tubs....	23 00	Senior Mill. 2 tubs....	39 00

Power Pulley for all Mills except Bantam, \$2 extra.

The Oasis Fruit Press

In the design, construction, and selection of materials for the Oasis Presses we offer a product superior in every respect to any hand Fruit Presses on the market. Frames are of selected, well-seasoned hardwood, finished in the natural color of the wood. Cross-heads are made of heavy iron and are much stronger than those used on most presses of large dimensions. The cylinder has beveled slats, properly spaced and securely riveted to wide steel-hinged bands.

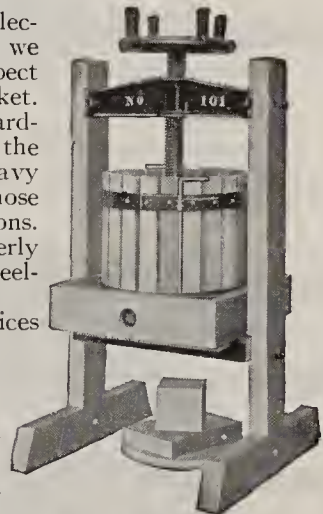
Furnished with hinged tubs at prices named.

No. 101. Tub 11 1/2 x 11 1/4 in. Capacity 1/2 bus. \$8.85.

No. 202. Tub 14 1/4 x 12 1/4 in. Capacity 3/4 bus. \$11.50.

No. 303. Tub 17 3/4 x 15 1/2 in. Capacity 1 1/2 bus. \$18.75.

No. 404. Tub 23 1/4 x 20 in. Capacity 3 1/2 bus. \$29.

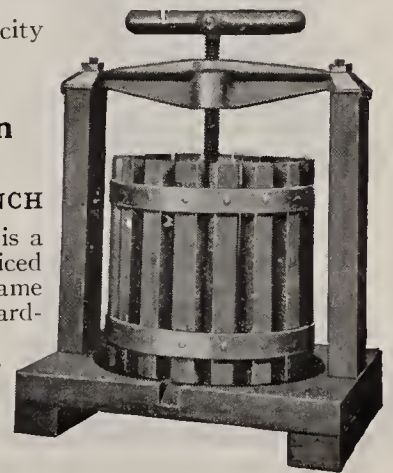


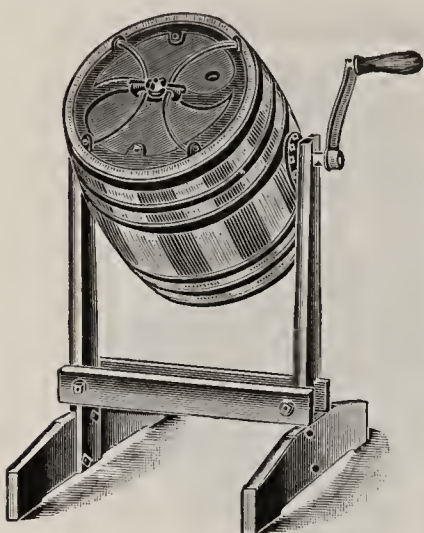
No. 0 Oasis Wooden Fruit Press

FOR USE ON TABLE OR BENCH

The No. 0 Oasis Fruit Press is a small, durable, reasonably priced wooden Press for home use. Frame is made entirely of selected hardwood; cross-head, semi-steel; die-cut steel screw; hardwood tub with extra-wide steel bands and beveled edged slats.

Tub 9 x 9 1/4 in. Capacity about 8 quarts. Price \$3.75.





The Favorite Barrel Churn

Made of the best quality of white oak, thoroughly seasoned and kiln-dried, having galvanized iron rim in head, making it as strong as a barrel with two solid heads.

The frame is substantially built and made of hard wood.

No Churn works so easily, no Churn cleaned more quickly, having no dashers or paddles. The churning is done by revolving the Churn, which agitates the cream and makes the butter separate from the milk.

No.	Total capacity	Will churn from	Price
No. 0.	6 gallons	1 to 3 gallons.....	\$8 00
No. 1.	10 gallons	1 to 5 gallons.....	9 00
No. 2.	15 gallons	1 to 7 gallons.....	10 00
No. 3.	20 gallons	2 to 10 gallons.....	12 00
No. 4.	25 gallons	2 to 12 gallons.....	14 00
No. 5.	35 gallons	3 to 17 gallons.....	16 00
No. 6.	50 gallons	5 to 25 gallons.....	30 00
No. 7.	60 gallons	6 to 30 gallons.....	34 00
No. 8.	80 gallons	7 to 37 gallons.....	40 00
No. 9.	100 gallons	10 to 50 gallons.....	48 00

Frames included at above prices for all sizes up to and including No. 5. Frames for larger sizes, extra, \$4.50. The larger sizes are often hung between two upright posts instead of a portable frame.

POWER PULLEYS

Single Pulleys

10-inch with shaft.....	\$2 25
12-inch with shaft.....	2 25
14-inch with shaft.....	3 00
18-inch with shaft.....	3 75

Double Pulleys

10-inch with shaft.....	\$3 75
12-inch with shaft.....	3 75
14-inch with shaft.....	5 00
18-inch with shaft.....	6 25

12-inch Pulleys for Nos. 0, 1, 2, and 3 Churns; 14-inch Pulleys for Nos. 4, 5, and 6 Churns; 18-inch Pulleys for Nos. 7, 8, and 9 Churns.

Taylor Electric Barrel Churn

The principle of the Barrel Churn is well known, as it has been in use for many generations. The Taylor is constructed of selected oak; the frame is of hardwood reinforced with metal braces and equipped with metal bearings. Standard, heavy-duty, splash-proof type, 110-volt AC motor, complete with cord and plug and V-type belting.



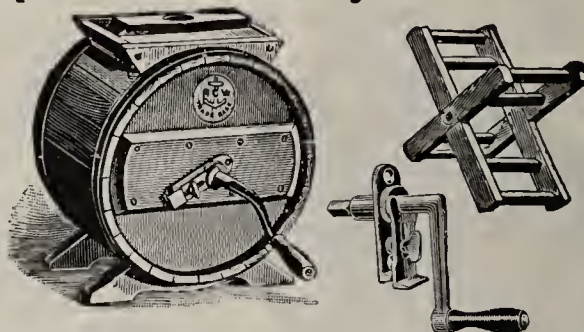
No.	Total Capacity	Churning Capacity	Price
10.	10 gals.	5 gals.....	\$50 00
15.	15 gals.	7½ gals.....	55 00
20.	20 gals.	10 gals.....	60 00
25.	25 gals.	12½ gals....	65 00
35.	35 gals.	17½ gals....	75 00
50.	50 gals.	25 gals.....	95 00

For 32-volt DC motor, \$3 extra.

Dandelion Brand Butter Color

Have your butter uniform in color in June and in January. Give butter the "high price" shade uniformly—the year round. Practically every large creamery in the country uses Dandelion Brand Butter Color, which proves it is kept up to the highest standard of quality. It is purely vegetable and meets the full requirements of all food laws, State and National. Small Size 35 cts., Medium Size 65 cts., Large Size \$1; postpaid, 10 cts. extra.

Improved Cedar Cylinder Churn



Our Improved White Cedar Cylinder Churn has a double dasher, and the crank is locked to the churn with a clamp and thumb screw, which prevents leakage. Lock cannot break. The top is large, and dasher easily removed. Hoops are of galvanized iron and will not rust. The best Churn in use. All castings are heavily tinned.

No. 1.	3-gallon	\$4 00
No. 2.	4-gallon	4 75
No. 3.	7-gallon	5 50
No. 4.	10-gallon	6 25

White Cedar Staff Churns

Our popular Staff and Dash Churns are made of selected, seasoned Virginia white cedar, and are bound with electric welded galvanized wire hoops. Fitted with handsome covers and hardwood staffs and dashers. These White Cedar Churns are carefully made, sweet, hygienic, and very light to handle.

16-in. Churns	3 gallons.....	\$1 40
18-in. Churns	4 gallons.....	1 65
20-in. Churns	5 gallons.....	1 90
22-in. Churns	6 gallons.....	2 15
24-in. Churns	8 gallons.....	2 75
26-in. Churns	10 gallons.....	3 00



Standard Glass Churns

You can make butter for home use in from 8 to 10 minutes. Easy to clean. Also used extensively for mixing cake ingredients, beating eggs, whipping cream, and mixing salad dressing. The scientific construction of the 4-blade hardwood dasher, giving a rotary motion to the cream against the square sides of the churn, is what makes it the best churn ever made. Extra jars for Glass Churns can be furnished.



	Postpaid
2-quart.....	\$1 50 \$1 70
4-quart.....	2 50 2 75
6-quart.....	3 00 3 25
8-quart.....	3 75 4 05

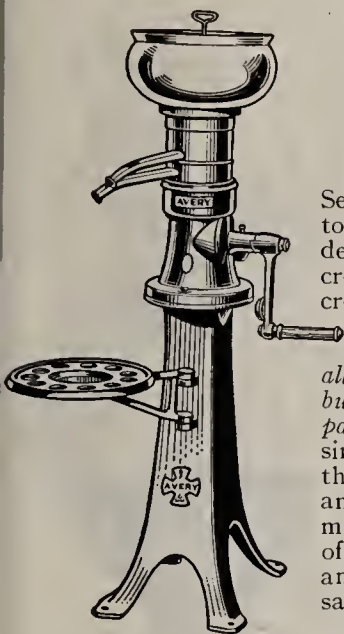
Paterson Genuine Vegetable Parchment

It is insoluble, having no taste or odor, and is moisture-proof and grease-proof. The nationally advertised wrapper for butter, cheese, lard, smoked or fresh meats, fish and other food products.



1,000-sheet boxes, plain, no printing	\$2 00	\$2 40
1,000-sheet boxes, printed "1 lb. net"		4 25
250-sheet boxes, plain, no printing	60	70

Postage extra, 250-sheet box, 5 cts.; 1,000-sheet box, 15 cts.



Avery Ball-Bearing Cream Separator

With Suspended Spindle and Floating Bowl

This wonderful new Avery is the one Separator you will unquestionably desire to own the moment you have seen it demonstrated. It skims clean—gets the cream to the last trace—produces better cream and more of it. It combines all the best features of other well-known Separators. *It is completely free from all neck bearings, neck-bearing springs, bushings, steel points, and other troublesome parts, yet the price is moderate.* It is so simple, so "foolproof" in construction, that a 14-year-old boy can take it apart and put it together again in just a few minutes. It is so durable it will give years of steady service uninterrupted by repairs and replacements, requiring no attention save *oiling once a year.*

And on top of all this, the Avery is really easy to run and easy to clean. Due to the new Avery Self-balancing Floating Bowl, Suspended Ball-bearing Spindle, and other patented features, this Separator positively runs easier than any other machine of equal capacity, and a demonstration will prove it.

An Avery Quickly Pays For Itself

If you have two or more cows, an Avery will quickly pay for itself in the profit it gives you in cream—a source of income that thousands of farmers are now working to the limit. If you are skimming by hand, you are losing from one-eighth to one-third of your cream. Then, too, you are not getting the heavy, smooth quality of cream a good Separator gives.

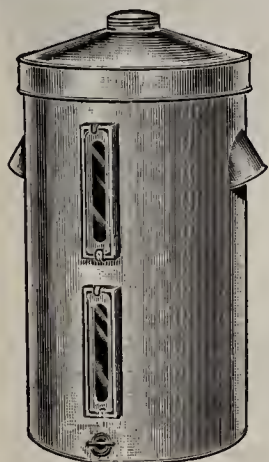
Furnished with stand as shown in illustration, except as noted.

No. 15. 175 lbs.	\$30 00*	No. 30. 300 lbs.	\$55 00
No. 15. 175 lbs.	40 00	No. 40. 400 lbs.	70 00
No. 20. 225 lbs.	40 00*	No. 50. 500 lbs.	80 00
No. 20. 225 lbs.	50 00	No. 70. 750 lbs.	110 00

*Without stand, to bolt to table or bench.

Price of Electrical Attachment quoted on request.

Before you buy a Cream Separator, call and see the Avery, or send for descriptive circular.



Star Cream Separator

Easiest, Cleanest, Simplest Cream Separator of its Kind on the Market. Reversible Strainer, Cover and Aerator—Inclined Bottom.

Made of the best material to be found on the market, with the most perfectly constructed bottom, allowing every particle of cream and milk to be drawn, without disturbing the can, thereby preventing all liability of remixing cream and milk after being separated.

DIRECTIONS. Place the Separator on a bench or box in any convenient place, with the front projecting over a little so that a pail can be placed under the faucet, without disturbing the can when drawing off the milk and cream.

Place cover, inside up, on Separator and pour your milk through the strainer into the Separator. In warm weather dilute with same amount of water that you have of milk; in cold weather, or if water is more than ordinarily cold, a less amount has been found to be sufficient; then replace cover after changing strainer to outside of cover and allow to stand.

Price List—With Cover

No.	Capacity	Quarts	Price
0. 1 COW.	24	\$3 10
1. 1 to 2 cows.	48	4 15
2. 3 to 4 cows.	68	4 35
3. 6 to 8 cows.	118	5 75

Improved Champion Milk Cooler

It is a perfect aerator, removing all flavors arising from excessive cabbage, turnip, or silo rations. It reduces the temperature of the milk instantly nearly to the temperature of the cooling medium and is as easily cleaned as a pail.

Fast Cooling Important. It is but the work of a moment to fill the Improved Champion with cold or ice water, or attach a ½-inch stream of flowing spring water. The milk flows over the cooling surface in an even film and cooling is sure and certain.

The following sizes of the Champion are gauged as nearly as possible to take care of the milk as fast as drawn from various sized dairies with the average number of milkers. Be sure to get one large enough, as best cooling results are obtained with low pressure of milk in the receiver.

Capacity milk receiver	Size of dairy	Takes care of	Price
No. 2. 18 qts.	1 to 25 cows.	3 milkers.	\$8 00
No. 3. 34 qts.	25 to 50 cows.	5 milkers.	9 60
No. 4. 52 qts.	50 to 100 cows.	8 milkers.	12 00



Osborn Brushes for the Dairy

Hand Bottle Brushes

No. 86. Prepared stiff bristle, 2¾-in. diam., 6¼ in. long; handle 8½ in. long; wire-wound. 65 cts., postpaid 75 cts.; doz. \$8.

No. 72. Black China Bristle. Same size as No. 86. 50 cts., postpaid 55 cts.; doz. \$5.50.

No. 124. Stiff gray hair, 3-in. diam., 6¾ in. long; handle 8¼ in. long; wire-wound. 65 cts., postpaid 70 cts.; doz. \$7.



For Machine Washer

No. 125. Turbine. 55 cts., postpaid 60 cts.; doz. \$6.

No. 100. Center Brush for cleaning outside of bottles. 85 cts., postpaid 90 cts.

No. 101. Outside Brushes for cleaning inside of bottles. 65 cts., postpaid 70 cts.

Complete Set of 3 brushes, \$2, postpaid \$2.15.



Palmetto Milk Can Brush

No. 08. Palmetto fibre; width of face 5 in., length of face 9½ in.; solid block. Made of an excellent grade of durable fibre, very full, with flaring wings. 55c., postpaid 65c.; doz. \$6.

Genuine African Bass Stable Brooms

No. 286D. Solid block 14½ in. long; length of stock 5½ in., clear, 4 rows; complete with handle. \$1.25, postpaid \$1.50.

No. 500. Solid block 16 in. long; length of stock 7¼ in., clear, 5 rows; complete with handle. \$1.65, postpaid \$1.90.



Security Milk Cans



OHIO PATTERN

Made of Follansbee forge steel with an extra-heavy coating of pure tin. Welded side seam.

	Neck	Each	Doz.
5-gal., 6 $\frac{3}{16}$ -in..		\$3 75	\$42 00
8-gal., 7 $\frac{1}{4}$ -in..		4 50	51 00
10-gal., 7 $\frac{1}{4}$ -in..		4 65	53 00

Umbrella Cover for Ohio pattern in place of Sunken Cover, add 15 cts. per can. Half-Dozen Cans at Dozen Rate.



ST. JOHN PATTERN

Heavily constructed. Seamless drawn neck and breast. One-piece upright handle.

	Each
1-gal.....	\$3 00
2-gal.....	3 50
2 $\frac{1}{2}$ -gal.....	3 75
3-gal.....	4 00

Name-Plates for Milk Cans

Brass Name-Plates soldered on can, limit three lines, twenty letters per line, 15 cts. each; doz. or more, \$1.50 per doz.

Owen-Illinois Milk Bottles

Built for Service

All Bottles and capacity guaranteed to conform with state laws.

Owen-Illinois Milk Bottles are made of the highest strength glass obtainable and on the newest type automatic machines. They are made in several shapes, but we recommend style M-50 as illustrated.

	Doz.	$\frac{1}{2}$ gross	Gross
Quarts.....	\$0 90	\$4 40	\$8 25
Pints.....	75	3 45	6 35
Half-Pints.....	65	2 95	5 35
Quarter-Pints.....	65	2 95	5 35

Five-gross lots 25 cts. per gross, 10-gross lots 50 cts. per gross, and 25-gross lots 75 cts. per gross less than above prices.

Name-Plates \$2 50 for each size. Plates free on orders for 5 gross of one size.

Orders for lettered Bottles must be for one gross or more of each size. All lettered Bottles f.o.b. factory, with freight allowance of 50 cts. per gross. Plain Bottles f.o.b. cars, Pittsburgh.



Perfection Milk Bottle Basket

Perfection Baskets are made up of plain annealed bands. They have extra-heavy top and handle, made to last a lifetime.

Each Postpaid Doz.

6-quart....	\$1 30	\$1 40	\$14 00
8-quart....	1 40	1 50	15 00

Lisk Milk Cans

Charcoal tin body and bottom; one-piece retinned breast. Malleable ears and heavy tinned wire bail.

	Each	Postpaid	Doz.
P-2304. 1 gallon....	\$1 25	\$1 40	\$13 50
P-2306. 1 $\frac{1}{2}$ gallons..	1 50	1 65	16 25
P-2308. 2 gallons....	1 85	2 05	20 00
P-2312. 3 gallons....	2 25	2 45	24 25

Half-Dozen Cans at Dozen Rate



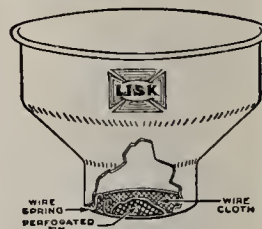
Milk Strainers

No. 1934. Made seamless—body and foot drawn of one piece of metal. Wire cloth soldered on bottom and equipped with sturdy wire foot or band, to be used as a foot when straining into a pan, or as a band to hold cloth when straining into a can. The brass wire cloth on bottom can be easily replaced. Sanitary and easy to clean. Capacity 4 quarts. \$1.10, postpaid \$1.25.

No. 1934



P19512. The most popular Strainer on the market. Seamless and sanitary soldered. Furnished with bottom cut out and equipped with removable flat perforated tin disc, convex perforated tin disc, and spring wire. Cotton pads are used between the discs and are furnished at extra charge. Capacity 12 quarts. \$1.60, postpaid \$1.85.



No. P19512

Cotton Discs. 6-in. diameter. Plain Discs, package of 100, 40 cts., postpaid 50 cts.; package of 300, \$1.10, postpaid \$1.25. Thread-faced Discs, package of 100, 65 cts., postpaid 75 cts.; package of 300, \$1.75, postpaid \$1.90.

Savory Dairy Pails

Each

No. 2012. 12-qt., plain bail, sanitary solder.....\$1 10

No. 2014. 14-qt., plain bail, sanitary solder.....\$1 20

No. 812. Strainer Pail. Wire bail with wood roll, \$1.65.

The Sanitary Solder Pails have soldered outside seams in addition to the regular soldering of seams that is done on all Dairy Pails, which makes the Pail strictly sanitary. It complies with all dairy laws.



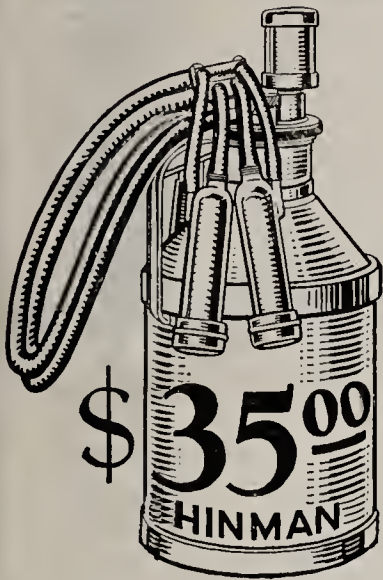
Churn Thermometer

Glass cylinder; mercury-filled tube; accurate, within one division of the scale; 10 inches long. 50 cts., postpaid 65 cts.

Perfection Anti-Cow Kicker

The grapple or hook parts are made from a special size round steel, so shaped and arranged to prevent torturing or injuring the animal's legs. An extra-heavy strong webbing comes in front of the legs, thus acting as a pad, absolutely preventing cutting, injuring, or bruising the fleshy parts, such as produced by chain links, which often gall, bruise, or injure the sides and front of legs. \$1, postpaid.

HINMAN "35" THE MILKER OF TODAY



Here is a Milker unit that works on any pipe-line built and is guaranteed by a company that has more than 100,000 milkers at work, plus 25 years of milking-machine experience.

The price, \$35, is the lowest ever quoted for a single-unit pipe-line machine. However, the performance is not to be judged by the price. The Hinman "35" is second to none in milking fast, clean, and correctly.

The teat-cups positively stay on without a surcingle; snappy relief is effective through squeeze of one-piece rubber-lined cups. New visible milk-flow; automatic vacuum shut-off at milk-claw; and a timer mechanism that has been in constant operation for more than three years, perfected in every detail.

These are just a few advantages that facilitate year-round success, comfort to the cow, and general efficiency.

If you need a Vacuum Pumping Outfit and Stall Cocks, or a Higher Priced Milker Unit made of Nickel and Stainless Steel, write us for special circular and prices.

Finest, Fastest Electric Clipper Ever Invented



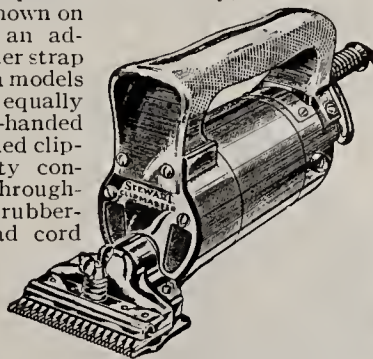
Stewart J-2 Electric Clipmaster with leather strap handle for any 110- to 120-volt current, \$15; for any 220-volt current, \$17; for 32-volt direct current, \$17; Postage extra, 25c.

Stewart J-1 Electric Clipmaster with aluminum built-on handle for any 110- to 120-volt current, \$16; for any 220-volt current, \$18; for 32-volt direct current, \$18. Postage extra, 25 cts.

STEWART MOTOR-IN-HANDLE Clipmaster

Clips Cows, Horses, and Mules

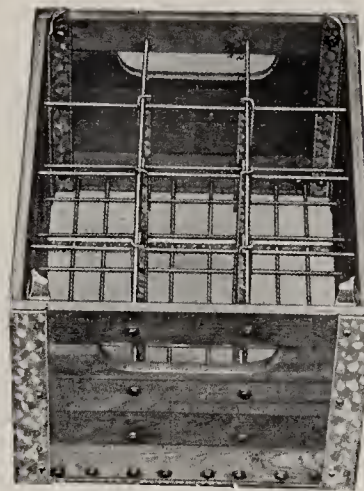
This remarkable animal clipper has great reserve power. Is very light but extremely sturdy in construction. Has perfect balance in any clipping position with easy, comfortable grip. That shown on the left has an adjustable leather strap handle. Both models shown are equally handy for left-handed or right-handed clipping. Quality construction throughout. 20 feet of rubber-covered 3-lead cord with rubber-sheathed, easy-pull socket plug. Fully guaranteed by world's largest makers of clipping and shearing machines.



EXTRA CLIPMASTER PLATES

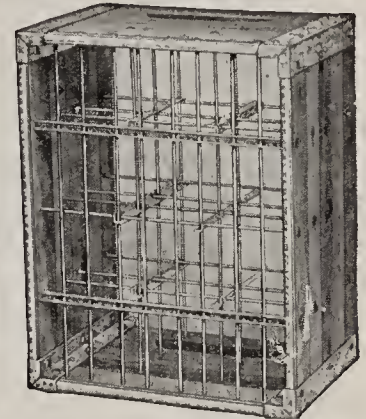
The E type of clipping plate can only be used on Clipmaster models. E-1 top clipping plate for Clipmaster only, \$1.25. E-3 extra-thin top clipping plate, \$1.25.

E-2 regular bottom clipping plate for Clipmaster, \$1.75. E-4 extra-thin bottom clipping plate, \$1.75.



Top View

Armor-Klad Bottle Cases



Bottom View

Armor-Klad Cases are built so strong that even at the first glance you are impressed with their exceptionally fine construction. Armor-Klad Cases will stack with all standard Cases, and once you use them you will soon want to replace all your crates with Armor-Klads.

The top view shows the rigid construction, the lapping corners of heavily galvanized iron, and the angle-iron supports for the dividing wires. Not a nail or a screw is used in the manufacture of this tough crate. All the wires extend clear through the wood slats and the corner irons are riveted, inside to outside. One of the most important features of this Case is the construction of the bottom runners. The runner is dovetailed into the bottom slat and is further held in place by the corner irons.

No. 103C 12-qt. case... \$2 20 | No. 302C 20 half-pt. case... \$2 20
No. 201C 20-pt. case... 2 00 | No. 303C 30 half-pt. case... 2 25
10 cases or more, 10 cts. per case less.

Sensational New Combination Shearing and Clipping Machine

The Stewart Electric Shearmaster is primarily designed for shearing of sheep and goats but simply with a change of the bottom plate only to the No. 4-HC it becomes an excellent cow- and horse-clipper. Light and easily handled but very strong and sturdy in construction. Ideal for flocks numbering up to 200 sheep or goats, and the right machine to use where there is both clipping and shearing to be done.

Stewart Electric Shearmaster for any 110- to 120-volt current, \$21. Postage extra, 25 cts.

EXTRA PLATES

4-HA top plate for both clipping and shearing, 30 cts.
4-HB bottom shearing plate, 75 cts.
4-HC bottom clipping plate for clipping cows and horses, \$1.50.

Hand-Power Shearing and Clipping Machines



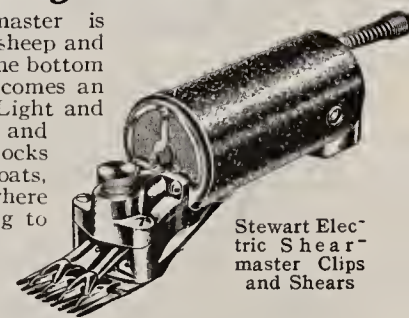
No. 10

Stewart No. 10. The easiest turning, most satisfactory hand-power clipper ever made. Long lasting and sturdy, easy to use, with 6-foot flexible shaft and chain and latest patented B-1 clipping head. Shipping weight complete, knocked down in wooden box, 33 pounds. \$12.50.

Stewart No. 9. Hand-Power Shearing Machine for shearing sheep and goats. Has universal jointed, cog-driven shaft, fitted with light-running, ball-bearing Stewart No. 7 shearing handpiece. Built to last a lifetime. Shipping weight complete, knocked down in wooden box, 45 pounds. \$22.95.

Extra Plates

276 Top cutter for shearing, 30c. | 360 Top plate for clipping, \$1.25.
277 Bottom shearing comb, 80c. | 361 Bottom plate for clipping, \$1.75.



Stewart Electric Shearmaster Clips and Shears

Sealright Standard Bottle Caps

Made from the Famous Fulton Board



These Caps are made from the very best grade of 35-point spruce-sulphite pulp board and are odorless and tasteless. A pure white paraffin is used for water-proofing them. The ink used for printing is especially manufactured for this purpose and will not spread or fade if bottles are submerged in water. These Caps work perfectly in capping machines.

PRICES

No. 2 size. Packed in tubes, 500 caps each

Stock printing.	Postpaid	
500 caps...\$0 35	\$0 45	25,000 caps.....\$11 50
1,000 caps... 65	75	50,000 caps..... 21 00
5,000 caps... 2 75	2 95	

Printed to order.	Prepaid	Prepaid
5,000 caps.....\$3 80		25,000 caps.....\$13 50
10,000 caps..... 6 00		50,000 caps..... 23 00

All Caps sent in with orders will be duplicated free of charge provided an exact duplication is desired. If there are any changes in the wording or the design, and on all new designs, an electro charge of \$1.25 for one color and \$2 for two colors will be made on type-set designs.

Caps printed to order are shipped direct from factory and transportation charges prepaid at prices quoted.

Can furnish caps 40-point thickness at 2 cts. per 1,000 additional.

Sealright Liftright Bottle Caps

Made from the Famous Fulton Board



The Liftright Cap requires no opener—lift-tab is part of the Cap. It has a patented groove at tip of lift-tab which makes it accessible for easy lifting. Lift-tab is strong and tough and slightly stripped at free end, making it easy to pull up, leaving all but tip of lift intact and not affected by moisture. Cap is thoroughly waxed with paraffin; waxing in groove prevents moisture penetration. Has strong wire staple at base of tab which assures positive leverage and prevents tearing.

Sealright Milk Bottle Caps are printed clear and sharp; they have clean, square-cut edges and exact diameters.

Liftright Caps will work perfectly in capping machines after they have been properly adjusted for handling this cap.

Made of 40-point board only.

PRICES

No. 2 size. Packed in tubes, 500 caps each

Stock printing.	Postpaid	
500 caps...\$0 40	\$0 50	25,000 caps.....\$13 50
1,000 caps... 75	85	50,000 caps..... 25 00
5,000 caps... 3 25	3 50	

Printed to order.	Prepaid	Prepaid
5,000 caps.....\$4 10		25,000 caps.....\$15 00
10,000 caps..... 6 60		50,000 caps..... 26 00

All Caps sent in with orders will be duplicated free of charge provided an exact duplication is desired. If there are any changes in the wording or the design, and on all new designs, an electro charge of \$1.25 for one color and \$2 for two colors will be made on type-set designs.

Caps printed to order are shipped direct from factory and transportation charges prepaid at prices quoted.

Milk and Cream Scale

"Weigh the Milk"

Do you know what your milk costs? Do you know which are your profitable cows? And which, if any, are unprofitable? It is of vital importance to every producer that the cost of the product be accurately known, whether that product be milk or cream, butter, bread, nails or shoes. It costs as much to keep a poor cow as it does to keep a good one. The quantity and quality of milk and cream produced show which are good and which are poor cows. Weigh the milk from each cow, so you can know which are your profitable and which, if any, are your unprofitable cows.

These scales are made with adjustable (Red) pointer to take up tare of pail or can.

Directions.—Hang the pail or can on the hook, and adjust red pointer to zero. Then pour in the milk, and the red pointer will indicate exact weight of milk alone. Black pointer indicates weight of milk and pail or can. Milk-record blank packed with each scale.

30-lb. Scale. Weighs by 1/20 lb., price, \$5.85; postpaid, \$6.

60-lb. Scale. Weighs by 1/10 or 1/20 lb., price, \$6.75; postpaid \$6.90.

120-lb. Scale. Weighs by 1/10 or 1/20 lb., price, \$10; postpaid, \$10.15.

These same Scales can be furnished to weigh by ounces at the same prices



Fairbanks Portable Platform Scale

An All-metal Scale Built for Long Life

Everything a farmer buys or sells should pass over his own Scale. A few pounds short when he buys; a few pounds over when he sells—these losses count into real money in a year's time. You can stop these losses with an all-metal Fairbanks Portable Platform Scale.

In this Scale, copper-steel alloy replaces the wood, eliminating the expense of repair or replacement caused by warping or cracking of wood, and forming the most rigid Scale ever offered. All counterpoise weights, stem and cup, bearings, etc., are rust-proofed by the Parkerizing process, which assures accuracy throughout a long life of severe service.

No. 1128. Capacity 500 lbs.....\$20 00

No. 1124. Capacity 1,000 lbs..... 23 50

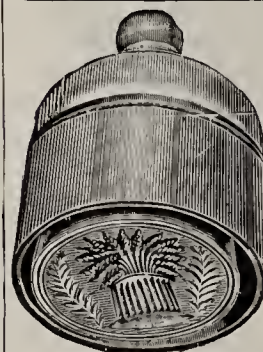


Round Butter Moulds

These Moulds are made of the finest selected sugar maple, thoroughly seasoned, hand carved, and are a strictly first-class Mould. Made in 1-pound size.

No. 1. Sheaf Design, or No. 2. Cow Design. 40 cts.; postpaid 50 cts.

No. 10. Oblong Brick Butter Moulds. Made with mortise and tenon corner joints. Extremely durable. 1-pound size, 40 cts.; postpaid 50 cts.

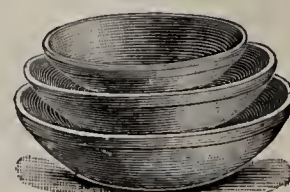


Hardwood Butter Bowls

Made from selected Michigan hardwood; paraffin wax finish. Extra deep; heavy rimmed. 15-in. \$1.50; 17-in. \$1.75; 19-in. \$2.

Anderson Butter Ladle

Made from white sugar maple. 20 cts., postpaid 25 cts.



Pilling Hard-Rubber Teat Plug



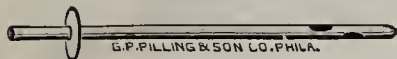
The Pilling Hard-Rubber Teat Plug is especially designed to prevent dropping of milk in cows where there is a relaxation of the little muscle at the end of the teat and consequent leakage of milk as soon as enough pressure accumulates in the udder; also to dilate the canal of the teat above the muscle in cases where hard milking is due to contraction of this part of the canal. 65 cts. postpaid.

Pilling Teat Expander

The Pilling Teat Expander, of metal, nickel plated, is intended to expand and enlarge the opening of hard-milking teats. It also expands the milk canal at the same time. Easy to use. 60 cts. postpaid.



HOLE FOR TAPE



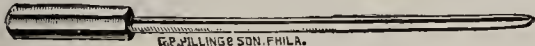
Pilling Milking Tubes

For sore and obstructed teats and hard-milking cows.

Can be made any length by moving the adjustable slide; can also be used for a probe to pass the obstruction. 2 1/4-inch 65 cts., 2 3/4-inch 80 cts., 3 1/4-inch 95 cts., 3 3/4-inch \$1.10, 4 1/4-inch \$1.25 postpaid.

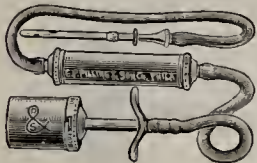
Medicated Wax Teat Dilators

First open teat with a metal dilator, probe or milk tube, then keep a Wax Dilator in teat between milkings. 25 cts. per pkg. of 18, postpaid; \$1 for 7 doz., postpaid.



Pilling Teat Opener

The Pilling Teat Opener differs from the Bistoury inasmuch as the Opener is simply used as a reamer or dilator to pass the obstruction. It does not cut the obstruction as the Bistoury does. \$1 postpaid.



Pilling Milk Fever Outfit

Made according to specifications of the U. S. Department of Agriculture, except it is made with patented metal pump instead of rubber bulb. Price with metal pump and regulator tube, \$3.50.

Prices on other Pilling Cattle Instruments on request. Send for booklet.



"Kant Suk" Calf and Cow Weaner

Being made with a hinge joint, it swings out of the way when the calf eats or drinks, but effectually prevents sucking. It is heavily tinned, sanitary, and humane.

	Postpaid
No. 1055. Calf size..	\$0 50 \$0 55
No. 1055 1/2. Yearling size.....	60 65
No. 1056. Cow size..	65 70

Common-Sense Calf-Feeder

The Common-Sense Calf-Feeder is a simple, practical device which every calf-owner will appreciate. The calf sucks his food in a natural manner, and the milk is taken into the stomach without having it form a solid, cheese-like, indigestible lump, which is frequently the case where the calf drinks directly from the pail.



	Postpaid
Single Feeder.....	\$2 00 \$2 15
Double Feeder.....	3 00 3 15

The Improved Keystone Dehorner



The Improved Keystone Dehorner is the latest and most efficient Dehorning knife on the market today. It has been altered and improved in several important points of construction, until its strength, cutting service and durability have been greatly increased.

The entire instrument is lighter, stronger, and better proportioned than former Dehorning knives. We guarantee it to be a first-class device in every way. Complete with leader, rope, extra set of blades and screws, \$18; postpaid \$18.50.

Special Circular Sent on Request



Safety Bull Staff

Constructed of 1 1/8-inch O. D. extra-heavy steel pipe with malleable lock-hook. Can be operated from two places. To hook the nose-ring into the Staff, pull on the slide-ring near the head of Staff; to release, pull on the snap-ring in handle of the Staff. Length 4 ft. 9 in. Weight 8 lbs. \$3, postpaid \$3.15.

"Pierceasy" Bull Ring

This is "the Ring with a point." It is made of bronze, cuts a clean hole, and is superior to the ordinary Ring.

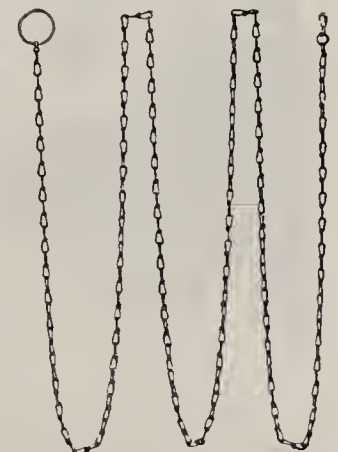


	Postpaid
No. 1. 2 3/4 x 5/16 in...	\$1 25 \$1 35
No. 2. 2 7/8 x 3/8 in...	1 75 1 85
No. 3. 3 1/4 x 7/16 in...	2 00 2 10

"Bullchane" Pacifier

If you own a bull that's at all hard to handle, you need Wagner's "Bullchane" Pacifier. Subdues most vicious animal without any harmful effects whatsoever.

Cannot twist because it has swivels every 2 feet. Snaps in nose ring and makes finest kind of "hitch" or leader. Strong and long-wearing—and just heavy enough to effectually "tame" the ugliest animal. A boon to stock raisers. \$2.50, ppd. \$2.60.



Tie-Out Chain

Our Tie-Outs are all made with large swivel malleable iron stake ring, swiveling snap, and a swivel in the center.

20-ft. Chain, 65 cts.; postpaid, 75 cts.; 30-ft., \$1; postpaid, \$1.10.

Each Tie-Out Chain is packed in a neat and substantial bag.

Cow Ties

For stable use. Well made with two toggles. 40 cts. each, postpaid 50 cts.

Ney Dairy Barn Equipment

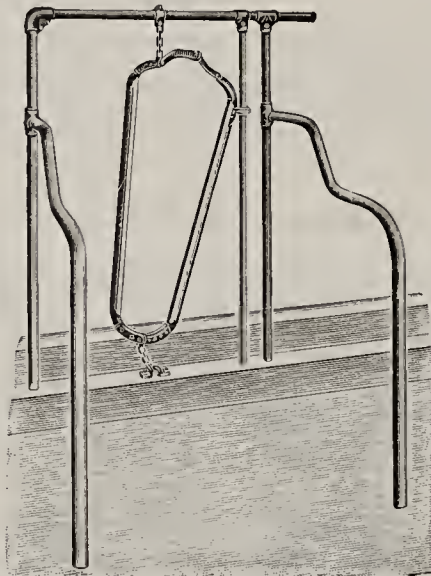
Ney No. 1 Stanchion

Unquestionably the best Stanchion ever placed on the market. Made without springs, the folding, over-center toggle locks it securely when closed and ties it together at the top when open. Frame high carbon T-bar steel with seasoned hardwood lining. Other parts malleable iron, connecting links of steel. Width adjustable, 7 to 8½ inches. \$4.40 each.

Ney No. 5 Stanchion

In general somewhat similar to the No. 1, but lighter, non-adjustable in width, and has no malleable iron parts. Frame U-bar, lined with hardwood. A good low-priced Stanchion. (Not illustrated.) \$3.15 each.

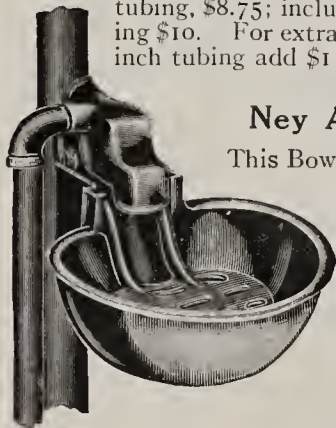
No. 5 Unlined. \$2.65 each.



Ney No. 40 Stall

Built entirely of high quality stiff steel pipe or tubing either 1½ in. or 1⅞ in. O.D. Bottom Anchor is of ⅞-in. galvanized "U" bolt with removable clamp; top rail shipped in sections of two to three stalls with all fittings on; "T" fittings attached to posts to receive stall partitions. Clamps and all parts are of steel and certified malleable iron; finished in special gray enamel.

In using No. 1 or 5 stanchion, No. 40 will appear exactly as illustrated with an extra 1¼-in. filler, making a two post center all the way through. Price, including No. 5 stanchion, 1½-inch tubing, \$8.75; including No. 1 stanchion, 1⅞-inch tubing \$10. For extra End Section \$4. For stalls of 1⅞-inch tubing add \$1 to these prices.

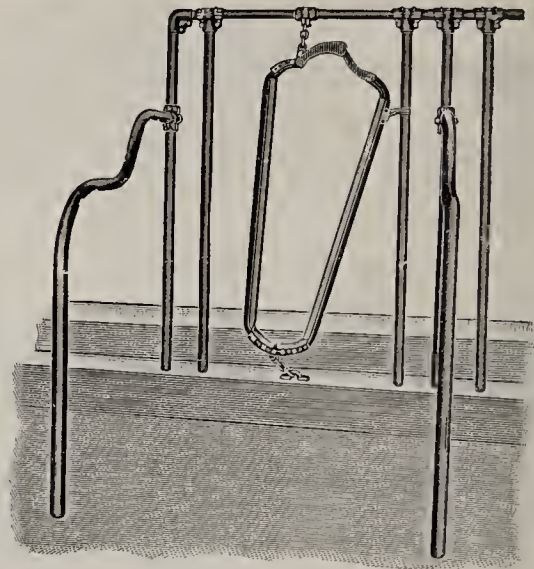


Ney Automatic Water Bowls

This Bowl is absolutely sanitary, 10 inches in diameter, smooth and round, with no corners to collect dirt. It is equipped with the hinged, dropped-clean feature and small automatic latch by which the Bowl can be dropped instantly for cleaning and raised to a normal position just as easily. All working parts of solid brass including cage. A strictly high-grade Bowl, working perfectly under all conditions.

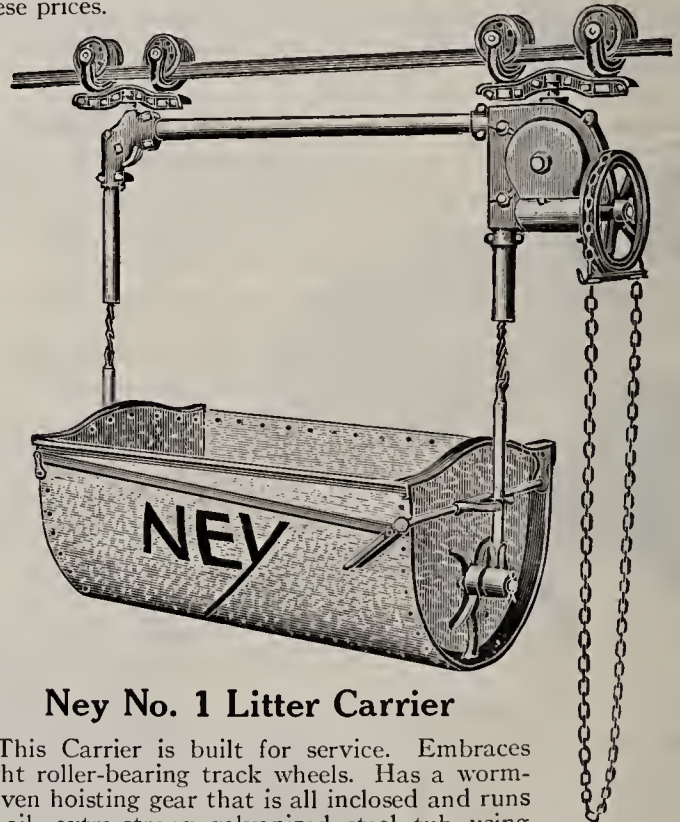
No. 1. \$3.95 each.

No. 2. Same as No. 1, except has cast-iron valve seat. \$3.15 each.



Ney No. 30 Stall

Very popular because simple, strong, and practical. Built entirely of 1⅞-inch (outside diameter), high-quality, stiff steel pipe or tubing with strong steel "T" clamps. Top rail is shipped in sections for two or three stalls with all fittings in place. Center posts have "T" fittings attached to receive stall partitions. Regular stanchion hanger and anchor included. Standard width 42 inches; can be varied to suit. Finished in gray enamel. Weight averages 90 pounds. Price, including No. 1 stanchion, \$12.25. Extra End Section, \$4. For stalls made of 1⅞-inch tubing add \$1.65 to these prices.



Ney No. 1 Litter Carrier

This Carrier is built for service. Embraces eight roller-bearing track wheels. Has a worm-driven hoisting gear that is all inclosed and runs in oil, extra-strong galvanized steel tub using heavy malleable angles at ends and extra-large bearings. Price, with 8 to 10-bus. tub, \$56; with 10 to 12-bus. tub, \$58.

Ney No. 2 Litter Carrier

Practically same as No. 1 Litter Carrier, except it has only four 4½-inch track wheels instead of eight. (Not illustrated.) Price, with 8-to 10-bus. tub, \$48.50; with 10- to 12-bus. tub, \$50.50.

Ask for complete catalogue and prices on track and fixtures for Litter Carriers.

Ask for complete catalogue of Ney Barn Equipment, showing other styles of Stanchions and Stalls, Stall accessories, Litter Carriers, Bull-Pens, and other equipment.

"O & S" Vertical Boilers

Ideal for the dairyman or farmer, and for use wherever steam is required. We have a size that meets every requirement.

"O & S" Boilers have stood the test for nearly half a century. In construction and in operation their superiority has been acknowledged by users throughout the world. The steel plate used in these Boilers is firebox quality, containing a sufficient quantity of copper to insure minimum corrosion.

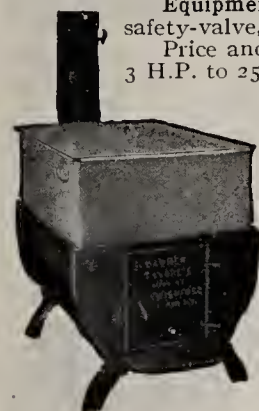
SPECIFICATIONS AND F.O.B. FACTORY PRICES

H. P.	Number of tubes	Length of tubes	Height of boiler	Diameter of boiler	Price
1½	16	18 in.	3 ft.	20 in.	\$143 00
2	19	24 in.	3½ ft.	20 in.	150 00
3	19	30 in.	4 ft.	20 in.	156 00
4	24	25 in.	4 ft.	24 in.	188 00
5	24	37 in.	5 ft.	24 in.	201 00
6	24	49 in.	6 ft.	24 in.	214 00
8	48	34 in.	5 ft.	30 in.	283 00
10	48	46 in.	6 ft.	30 in.	302 00

Thickness of shell, ¼ in.; thickness of head, ⅜ in.; thickness of furnace-plate, ⅝ in.; full-length tubes all 2 inches diameter. Manufactured in accordance with A. S. M. E. specifications.

Equipment: Bare boiler, base, grates, cone-hood, steam-gauge, water-gauge, gauge-cocks, pop safety-valve, blow-off valve, check-valve, stop-cock, and injector fitted to boiler.

Price and circular of other size Boilers on request. Can also furnish tubeless Boilers in sizes from 3 H.P. to 25 H.P. Prices and circulars on request.



"Farmer's Favorite" Boiler and Sterilizer

For Sugar-Makers, Butchers, Dairymen, and Fruit-Growers

One of the handiest agricultural Boilers and Cookers on the market today. It can be used for a great variety of purposes, such as cooking feed, heating water, sterilizing dairy utensils, rendering lard, scalding hogs, boiling spraying mixture, etc.

Top section, or boiler, is made of heavy galvanized steel, which fits securely into lower section, or furnace. The furnace is made with cast-iron ends and the center, or body, of heavy steel plate. The firebox is the length of the Cooker. A top plate can be furnished at a small cost, and when used in place of the Boiler it converts the Cooker into a first-class room-heater. It may be used indoors as well as outdoors. It is well constructed and inexpensive.

No. 2, 30 gals., \$16; No. 3, 40 gals., \$18; No. 4, 50 gals., \$20; No. 6, 100 gals., \$25

Prices f.o.b. factory. Faucet to draw off liquid, attached, extra \$1.50. One length of 6-in. stove-pipe and elbow included with Cooker



Perfection Funnel Filler

Conforms with Sanitary Law Requirements

The dairyman who bottles from 50 to 200 bottles of milk, cream, or buttermilk daily will find this Filler a saver of time, labor, and money. It is made of heavy cold rolled copper, tinned on both sides, and all seams are soldered smoothly and corners rounded.

These Fillers are fitted with cap seat sealing valve. All parts are brass, nickel-plated, and polished. The rubber ring is made to fit exactly on the cap seat, so that the rubber does not come in contact with the milk. The valve is designed to fill the bottles uniformly to within ⅛ of an inch from the cap.

They work on any size bottle and are well constructed, dependable, easily operated, and easily cleaned.

Postpaid
8-quart capacity... \$12 00 \$12 20
14-quart capacity... 16 00 16 25

Stand for either size,
if wanted, extra... 2 00 2 15

Circular and prices of larger size Fillers on request



Rotary Hand Bottle Capper

SANITARY—SIMPLE—FAST

If you are selling bottled milk, you cannot afford to be without one of these improved Cappers. It is faster and more sanitary than the old-fashioned "thumb and finger" method. Easy to operate; nothing to get out of order; always ready for immediate use. Conforms with all sanitary law requirements. Uses No. 2 standard bottle caps.

All working parts are case hardened and work on ball bearings. Extremely simple to clean. Weighs 8¼ pounds. Price, \$24.75, postpaid \$25.

K-R-O KILLS RATS WITHOUT DANGER

K-R-O cannot kill live-stock, pets, or poultry, yet is guaranteed to kill rats and mice every time.

Use K-R-O freely around the poultry-yard without danger to your flocks. Severest experiments have proved it safe. Chickens have been fed a steady diet of food containing 10 per cent K-R-O for as long a period as six weeks without injury. 2-oz. size, 75 cts.; 4-oz. size, \$1.25. K-R-O Ready Mixed, 22-oz. size, \$1, postpaid.

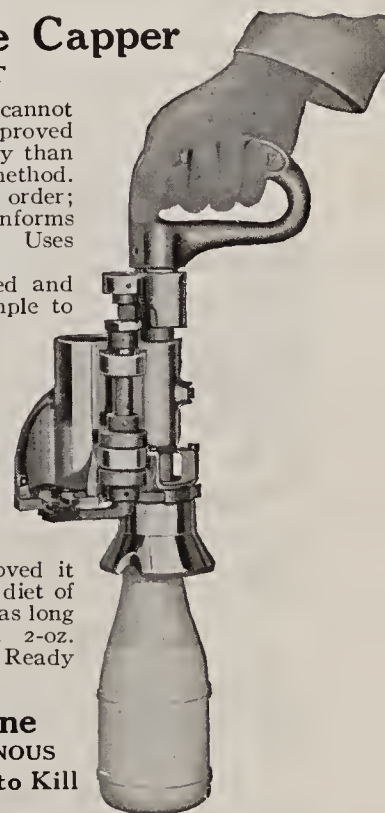


Pastoxine
NON-POISONOUS
Guaranteed to Kill
Rats

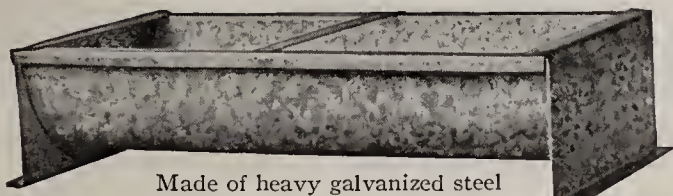
Is absolutely harmless to human beings, domestic animals, and poultry.

As little as 2 grains will kill a rat in from two to six hours, and it will go out in the open to die, thus eliminating all odors.

Pastoxine is approved by boards of health of leading cities and by the U. S. Department of Agriculture as not a misbrand. 1-oz. jar, 60 cts.; 1-lb. jar, \$5, postpaid.

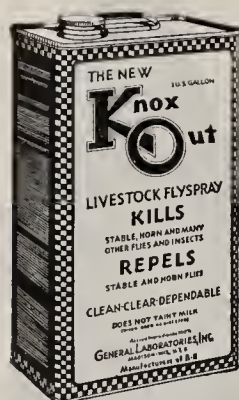


Superior Hog Trough



Made of heavy galvanized steel

	Each	Doz.		Each	Doz.
2-foot.....	\$0 65	\$7 00	6-foot.....	\$1 65	\$18 00
4-foot.....	1 25	13 50	8-foot.....	2 10	22 50

**B-K KNOX-OUT FLYSPRAY**

**KEEPS FLIES OFF CATTLE
CLEAN CLEAR NO ODOR**

A new and improved Spray, the result of recent and up-to-date research on killing and repelling flies.

Perfected by General Laboratories, makers of B-K Disinfectant.

Distinctive Features:

Kills flies.	Will not taint milk.
No bad odor.	Will not discolor cattle.
Clear, light color.	Does not gum hair.
Is not sticky.	No tar oil or acid.

Postpaid			
1-qt. can.....	\$0 60	\$0 75	5-gal. can.....\$6 75
1-gal. can.....	1 50	1 80	30-gal. drum.....35 00

Conkey's Fly Knocker

Every stockman, every dairyman needs Fly Knocker. Don't let flies torment your horses; don't let them worry your cows. Cows give more milk and butter-fat and horses work easier when you save their energy by keeping off those winged pests.

Postpaid			
Qt.....	\$0 60	\$0 75	Gal.....\$1 50
2 qts.....	90	1 10	5 gals.....7 25

Indor Insect Spray Kills Flies in Dairies and Milk Plants

CLEAN CLEAR

Mild, pleasant odor that disappears quickly after use.

Does not taint food when used as directed.

Postpaid			
1/2-pt. can.....	\$0 35	\$0 45	
1-pt. can.....		60	70
1-qt. can.....	1 00	1 15	
1-gal. can.....	3 25	3 55	
5-gal. can.....	15 00		

**Old Hickory Smoked Salt**

Each Sugar Cure drum contains a perfect blend of the original and genuine Old Hickory Smoked Salt and sugar-curing ingredients sufficient to sugar-cure and smoke 110 pounds of meat without the use of a smokehouse. A simple operation: rub it on the meat. Imparts that genuine Hickory flavor without smokehouse labor.

The regular Old Hickory Smoked Salt drums contain sufficient Smoked Salt to which you will add your own sugar-curing ingredients, to salt and smoke 133 pounds of meat (the dressed meat of a 225-pound hog). No smokehouse necessary. Either Old Hickory Smoked Salt in 10-lb. drum or Old Hickory Sugar Cure in 9-lb. drum, \$1 each, postpaid \$1.20.

Wright's Condensed Smoke

Since 1895, Wright's Condensed Smoke has been used for smoking all kinds of meat, fish, and game. It is quickly and easily applied with a cloth or brush. Warranted pure and wholesome. Pt. 65 cts., postpaid 80 cts.; qt. \$1, postpaid \$1.20.

Sal-Vet (MEDICATED SALT)

This is composed of sulphate of iron, sulphur, quassia, gentian, carbonized peat, charcoal, epsom salts, and tobacco coated on grains of salt, by a special process. Farmers should salt their stock with Sal-Vet, thus giving them the medication to keep out worms and strengthen digestion.

Postpaid			
5-lb. pkg.....	\$0 60	\$0 75	50-lb. pail.....\$4 00
10-lb. pkg.....	1 00	1 25	100-lb. bag.....6 75
25-lb. pkg.....	2 25	2 65	

**Sterilizer Dairy Disinfectant Deodorant**

LIQUID OR POWDER

Easy and economical to use—no acid—no oil—Deodorant—leaves no odor of itself. Approved and used by leading dairymen and authorities for over twenty years.

Kills bacteria on milk utensils. Cans, pails, and strainers contribute 85 per cent of the bacteria in milk. B-K kills 95 per cent of these bacteria.

Try B-K Powder for Economy

Provides a more economical solution. Just add to water and use according to directions on every bottle. A new and easy way to make your disinfectant and sterilizer.

Ideal Farm Disinfectant

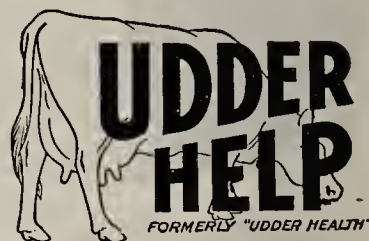
Kills germs—helps prevent and control calf-scours, retained afterbirth, and other diseases.

POWDER		Postpaid		LIQUID		Postpaid	
Small bottle....	\$0 75	\$0 85		4-oz. bottle....	\$0 30	\$0 40	
Large bottle....	1 50	1 60		10-oz. bottle....	50	60	
				1-qt. bottle....	90	1 05	
				1-gal. bottle....	2 00		
				5-gal. jug.....	8 50		

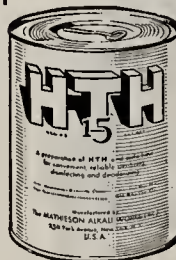
Udder Help

A highly antiseptic, healing ointment preferred by dairymen for "caked" bag, sore, chapped teats.

PRICES			
Postpaid			
1/2-lb. can.....	\$0 50	\$0 60	
1-lb. can.....	90	1 00	
5-lb. pail.....	3 75	3 95	

**HTH-15****Low-Cost Farm Sterilizer**

Here's a sterilizer that makes it easy to keep bacteria counts down and protect your milk-quality. With HTH-15, dairymen all over the country find it practical and economical to use the germ-killing solutions health authorities recommend. HTH-15 is a dry, free-flowing powder packed in handy, key-opening cans. Complete directions and a measuring-spoon come with each can. One measuring spoonful of the dry powder makes 3 gallons of effective dairy-rinse that is safe to use on milk equipment.

**Protects Poultry Health**

Poultry experts recommend the dry HTH-15 dusting treatment for colds, roup and bronchitis. This is the only approved way to give poultry the benefit of chlorine treatment without exposing them to the unhealthy dampness of vapor sprays. You can also check the spread of respiratory and other diseases by using HTH-15 in the drinking-water, to disinfect brooders, incubators, eggs,

etc. 1-lb. can 50 cts., postpaid 60 cts.; 3-lb. can \$1, postpaid \$1.15.

Wyandotte Sanitary Cleaner and Cleanser

This is used by 85 per cent of the butter- and cheese-makers in the United States and Canada. To this large number can be added thousands of farmers, dairymen, and milk-dealers who are steady patrons.

It contains no soapy grease, makes no soapy suds, nor resembles soap agents in any way. It is an efficient but harmless cleaner made purposely for washing milk utensils and containers.

Postpaid			
5-lb. sack.....	\$0 45	\$0 60	
80-lb. keg (bulk).....	4 90		
280-lb. bbl. (bulk).....	13 50		

Dr. A. C. Daniels' Cow Medicines

Cow Tonic. A concentrated medicinal powder. Give in the feed before and after calving. Feed at least one week every month during the winter for health and profit—it means more milk. 18-oz. can 60 cts.; 6 for \$3.30.

Uderkream. Ointment and massage for udders. 60 cts.

Anti-Scours. For scours in young calves. \$1.

Dr. A. C. Daniels' Horse Medicines

Colic Drops. For colic.....	Postpaid \$1 30
C. C. & F. Drops. Coughs, colds, and fevers.....	65
Horse Conditioner. A condition powder.....	65
W. K. Powders. An aid in expelling worms.....	65
Wonder Lotion. Scratches, wounds, and cuts.....	65
Gall Salve. A relief for saddle and harness sores. 35 cts. and	65
Antiseptic Healing Powder. For sores, cuts, and wounds..	65
Hoof Ointment and Softener.....	65
Oster Cocus Liniment. Cord and muscle liniment. 35c. and	65
Spee Dee Track Liniment. For strained tendons, sore muscles, and a general rub-down. Gal. \$7.50.....	
Pine-Oil Disinfectant. A fragrant deodorizer. Gal. \$2.50..	65
Baum's Harness and Saddle Soap. Unequaled for washing, cleaning, and softening all kinds of leather. Lb. 40 cts.	50

Blackman's Medicated Lick-A-Brik
The Original Medicated Salt Brick



Blackman's aids digestion; removes worms; purifies the blood; cures skin diseases, kidney, stomach and bowel trouble; prevents colic; creates a healthy appetite; tones up the system; removes old coat of hair and brings out the new.

Blackman's Medicated Salt Brick contains absolutely nothing but dairy salt mixed with sulphur for a blood purifier, copperas for worms and the bowels, saltpeter for the kidneys, and nux vomica, one of the best known tonics.

25c. per Brick, postpaid 30c.; doz. Bricks \$2.75
2 doz. Bricks \$5.25

Keystone Pure Salt Bricks
Stimulates Cow's Digestive System

Practical dairymen and live-stock feeders know that live stock like and want salt. A cow will be more thrifty and more healthy if she has the proper amount of salt in her ration.

Keystone Pure Salt Bricks, in the patent feeder built especially for them, placed where the live stock can have access to them, will let them take salt as they want it. These Bricks are of pure, unadulterated salt. 25 cts. per Brick, postpaid 30 cts.; doz. Bricks \$2.75; 2 doz. Bricks \$5.25. Patent Feeder, 40 cts. each, postpaid 45 cts.

Blatchford's Calf Meal

Blatchford's Calf Meal is absolutely the only milk-substitute which contains all the elements the calf requires for rapid and healthy growth.

It is the only Calf Meal that is thoroughly cooked and prepared for digestion. It is easy to feed. Calves relish it.

It supplies in easily assimilated form all the food elements necessary for rapid growth, early maturity, thrift and health.

Stock Feeds

We make a specialty of supplying our customers with high-grade stock feeds and concentrates. Following is a partial list:

Buffalo Gluten Feed	Whole Flaxseed
Digester Tankage	Cotton Seed Meal
Oil Meal, Old Process	Blatchford's Calf Meal
Flaxseed Meal	Alfalfa Meal

For prices on above feeds see our monthly feed price-list accompanying this catalogue.



BUILDS UP COWS
for "danger month"
(calving-time)

Kow-Kare with the feed guards against the many costly and troublesome ills that threaten at this critical time, and promotes general health and productiveness. This concentrated medicinal regulator is a scientific blend of iron and potent drugs, herbs, and pharmaceutical minerals, supplying practically every needed element to strengthen the normal functions of digestion, assimilation, and the genital organs.

Medium size....\$0 65 postpaid Large size...\$1 25 postpaid
Large size, 6 for \$6.25

Bag Balm for Udder and Teats

A great guardian of tender tissues; no other application so penetrating, so healing, for all farm uses; produces results often between milkings. For caked bag, bunches, chaps, cuts, inflammation, etc. Pleasant to use. Cannot taint milk. 10-oz. pkg. 60 cts., postpaid.

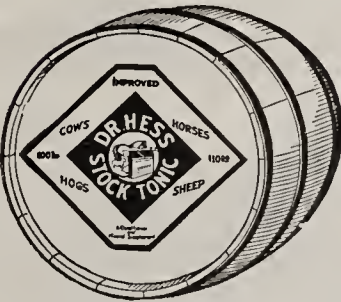
Bag Balm Dilators. Package of 25, 60 cts., postpaid.



Corona Wool Fat Compound

For Scalds, Burns, Cuts, Wounds, Cracked and Chapped Hands, Frosted Feet, Caked Udders, Sore Teats, Sore Shoulders, Cuts and Scratches, Cracked Hoofs. Keep a can in the house and barn. Use it for any sore or wound on man or beast, and you will find it "worth its weight in gold." 5-oz. tube 50 cts.; 8-oz. can 60 cts.; 20-oz. can \$1.20, postpaid.

Dr. Hess Improved Stock Tonic



A summary of many comparative tests, covering three years, shows that cows receiving Dr. Hess Improved Stock Tonic produce, on the average, 54.9 per cent more profit than cows not getting the Tonic.

The Tonic has been recently improved in keeping with latest scientific discoveries and feeding practices. All the minerals proved necessary to the heavy-producing dairy cow have been added. This conditioner and mineral supplement whets the appetite, sustains the milk-flow well through the lactation period, and is a valuable aid in calving.

	Postpaid		Postpaid
3-lb. pkg.....	\$0 45	15-lb. pkg....	\$1 75
5-lb. pkg.....	65	25-lb. pkg....	2 90
		100-lb. drum..	8 50

Pratt's Animal Regulator

A tonic for Horses, Cattle, Sheep, and Hogs. Pkgs. 25 cts., postpaid 30 cts.; 45 cts., postpaid 55 cts.; 85 cts., postpaid \$1.05; 25-lb. pail \$2.50, postpaid \$2.90.

Pratt's Cow Tonic
A regulator and medicinal tonic. Pkgs. 50 cts., postpaid 60c.; \$1, postpaid \$1.20; 25-lb. pail \$4.50, postpaid \$4.90.

Pratt's Hog Tonic

A digestive tonic, bowel regulator, worm-expeller, and fattener. Pkgs. 45 cts., postpaid 50 cts.; 85 cts., postpaid 95 cts.

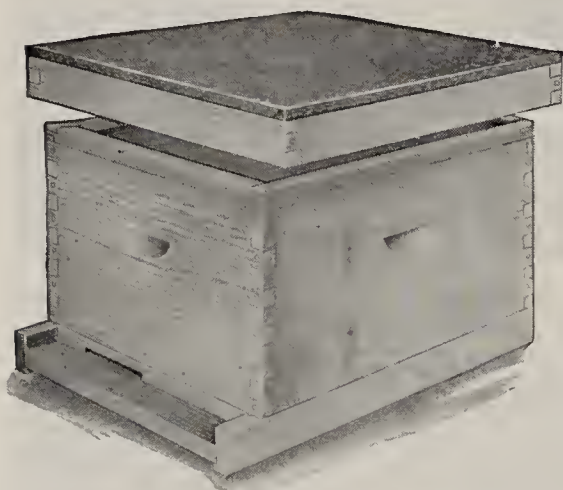
Retsof Rock Salt
The genuine Retsof Rock Salt in lumps weighing from 5 to 15 pounds each 50 lbs. 85 cts., 100 lbs. \$1.25.

Perfection Dairy Salt
10-lb sack 25 cts.; 25-lb. sack 50 cts.; 280-lb. bbl. \$3.10.

Root
QUALITY
BEE SUPPLIES

START BEEKEEPING—IT PAYS WELL

Standard Hives



We handle the very best bee supplies made, the well-known Root Quality Line. Every article of Root Quality Bee Supplies is guaranteed to give you absolute satisfaction. If you do not find what you want listed on these two pages, write for our 48-page catalogue.

Standard Hive
with metal cover
KD. 10 Frames (no
comb-foundation).
5 for \$15.10

This Hive is the one most generally used by the largest honey-producers on account of its light weight and the ease with which it may be moved from one location to another. However, it must be packed for winter. It is of highest quality throughout, being made of best selected pine lumber, perfectly milled and fitted together.

This Hive is $16\frac{1}{4}$ x 20 inches, and $9\frac{1}{8}$ inches deep, outside measurements.

Hives in the flat are furnished with nails, tin rabbets, reversible bottom-board, metal cover, with inner cover, Hoffman frames. 8-frame Hives are 8 per cent less.

Cat. No.	DESCRIPTION	Quan.	Wt. lbs.	Price
22202	Standard Hive complete, no comb-foundation	1 KD	31	\$3 35
22203	Standard Hive complete, no foundation	5 KD	149	15 10*
22205	Standard Hive complete, full sheets foundation	1 NP	33	7 35

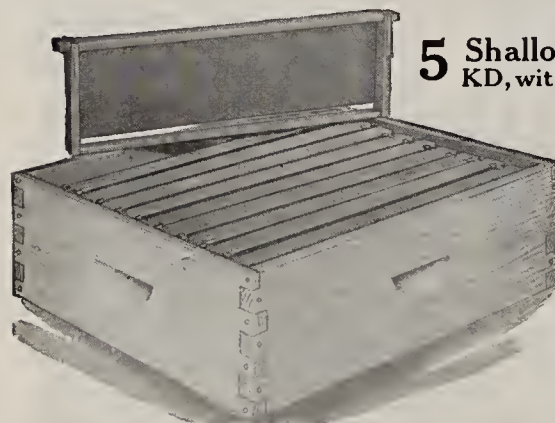
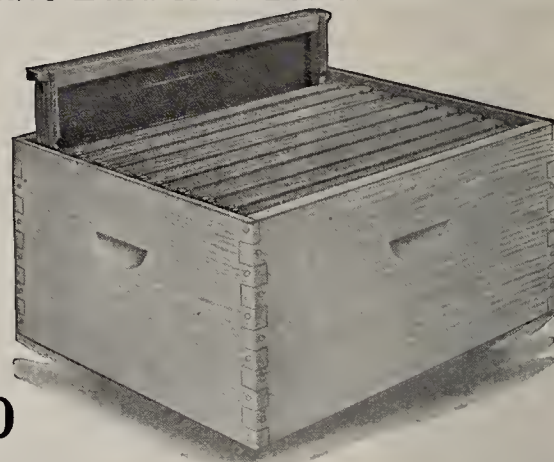
*Packed in four packages.

What is said about the Root Hive applies, of course, to Root Hive-Bodies. The standard dovetailed Hive is of Langstroth dimensions, 10-frame size, and measures $16\frac{1}{4}$ x 20 inches and is $9\frac{1}{8}$ inches deep. The Hive-Body may be used either as a brood-chamber, i. e., the lower story of the Hive, or as a full-depth upper story or super for extracted honey, thus forming a two-story Hive. Nails and tin rabbets included with bodies. No division-board.

Cat. No.	DESCRIPTION	Quan.	Wt. lbs.	Price
22482	Standard Body with frames, no foundation	1 KD	15	\$1 65
22488	Standard Body without frames	5 KD	45	4 00
2910	Hoffman Frames for use in these bodies	50 KD	25	2 75
2910	Hoffman Frames for use in these bodies	100 KD	47	5 40

It Pays to Have Extra Hive-Bodies

Five
Hive-Bodies
10-Frame Size
No Frames
\$4.00



5 Shallow Extracting Supers \$4.60
KD, with frames, no foundation

Shallow Extracting Supers ($5\frac{11}{16}$ inches deep)

This Super is largely used in the production of chunk honey. It is also used for producing extracted honey in shallow frames, two of these frames fitting together in an extractor comb pocket of 12-inch width. Two of these Supers may also be used as one brood-chamber Hive, and any style of Super may be used above for comb or extracted honey. This Super is also used for section-holders holding 4 x 5 sections. This is our regular extracting Super, $5\frac{11}{16}$ inches deep, and is furnished with shallow Hoffman frames, $5\frac{3}{8}$ inches deep, without foundation. No tin rabbets or division-boards furnished.

Cat. No.	DESCRIPTION	Quan.	Wt. lbs.	Price
22522	10-Frame Super with shallow frames, no foundation	1 KD	9	\$1 00
22523	10-Frame Super with shallow frames, no foundation	5 KD	39	4 60

Beeway Section Super ($4\frac{1}{4}$ x $4\frac{1}{4}$ x $1\frac{7}{8}$)

This Beeway Section Super, $4\frac{3}{4}$ inches deep, is most commonly used. It takes slotted section-holders, slotted wood separators, follower, and springs, and is furnished with or without sections, and with or without inch foundation starters. It may be used on any of our single or double-walled hives, tiered up one or more high.

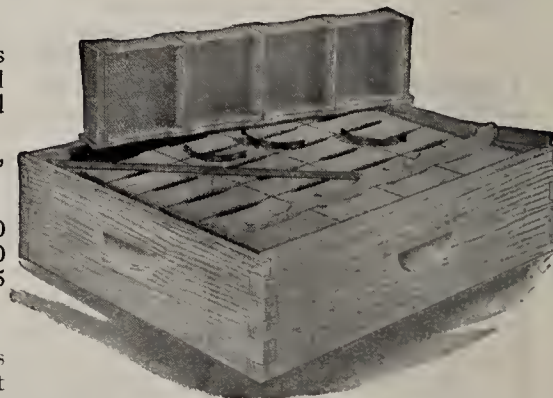
Super complete without sections includes nails, flat tins, end-stops, Super springs, slotted section-holders, slotted separators, and follower.

Cat. No.	DESCRIPTION	Quan.	Wt. lbs.	Price
22542	10-frame Super, without sections or foundation	1 KD	8	\$1 00
22543	10-frame Super, without sections or foundation	5 KD	42	4 60
22545	10-frame Super, with sections, full sheets	1 NP	11	2 85

Plain Section Super (4 x 5 x $1\frac{3}{8}$)

It is a deeper Super ($5\frac{11}{16}$ inches), and is fitted with section-holders and M fences with end stops and springs. The regular $16\frac{1}{4}$ -inch ten-frame width will easily admit eight section-holders and eight fences with Super springs. Super complete without sections includes end-stops, section-holders, fences, Super springs, flat tins, and nails.

Cat. No.	DESCRIPTION	Quan.	Wt. lbs.	Price
22552	10-frame Super complete, no sections or foundation	1 KD	11	\$1 80
22553	10-frame Super complete, no sections or foundation	5 KD	50	8 20



$4\frac{1}{4}$ x $4\frac{1}{4}$ x $1\frac{7}{8}$ Beeway Section Super

BUY ROOT BEE SUPPLIES—SAVE MONEY



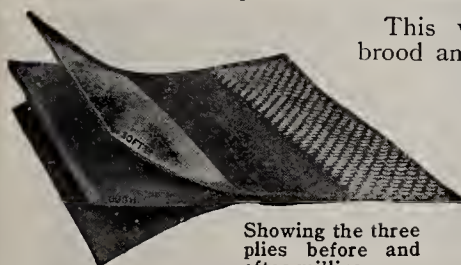
100 BEEWAY SECTIONS \$1.30
4 1/4 x 4 1/4 x 1 7/8

Root Section Guarantee

Made of finest basswood lumber, sorted with great care, dried exactly right, planed and cut exactly, expertly polished, dovetailed perfectly. Rounded bottom, V-grooved, so wood bends without breaking.

Quan.	4 1/4 x 4 1/4 x 1 7/8 in.	Wt. lbs.	Price	4 x 5 x 1 1/8 in.	Wt. lbs.	Price
100	2440.....	8	\$1 30	2450.....	6	\$1 20
250	2441.....	17	3 15	2451.....	14	2 90
500	2442.....	31	6 25	2452.....	28	5 75
1000	2443.....	62	12 50	2453.....	56	11 50

Three-Ply Airco Comb Foundation



Showing the three plies before and after milling.

This wonderful foundation for brood and extracting combs is the best because there is no sagging, no warping, one-third more worker cells, least amount of gnawing, and 7 sheets to the pound.

Leads all others in volume of sales.

5000. 10-sheet pkg. For Hoffman Frames 8 x 16 3/4.....\$0 90
5003. 50-sheet pkg. For Hoffman Frames 8 x 16 3/4..... 4 15

Single-Ply Airco Comb Foundation

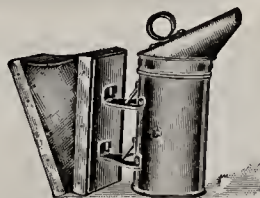
Genuine Airco Process Foundation, made into clear tough sheets from finest quality pure beeswax. Brood Foundation is cut in sheets size 8 x 16 3/4 inches; Super Foundation sheets are 3 7/8 x 15 3/4 inches and 3 11/16 x 14 1/4 inches.

The package numbers in the following price-list are for medium brood sizes, 8 x 16 3/4, and for thin super sizes, 3 7/8 x 15 3/4 only. For 4 1/4 x 4 1/4-in. section.

	Medium	Per pkg.	Thin	Per pkg.
5110.	10-sheet pkg.....	\$0 75	5331. 1-lb. box.....	\$0 70
5113.	50-sheet pkg.....	3 50	5333. 5-lb. box.....	3 25

Smokers

The latest improved model has anti-spark tube, which provides a safe force draft, has long-life flexible hinge, and wire handle, that is always cool. 423, Standard Tin Smoker, with 3 1/4-inch fire-box (weight 2 lbs.), \$1 each.



Queen Excluders

Queen Excluders are used to confine the queen to the brood-chamber, and are very generally used in the production of extracted honey. 4241, 10-frame, 7-wire and wood, 16 1/4 x 20 inches (weight 3 lbs.), 70 cts.

Root Bee-Veils

Root Indestructible Bee-Veil, made of highest grade, dead-black wire cloth, is comfortable and snag-proof. Can be worn on any hat. 255. Root Indestructible Bee-Veil, weight 1 lb.....\$0 80
253. Veil, cotton tulle throughout, weight 3 ozs..... 65

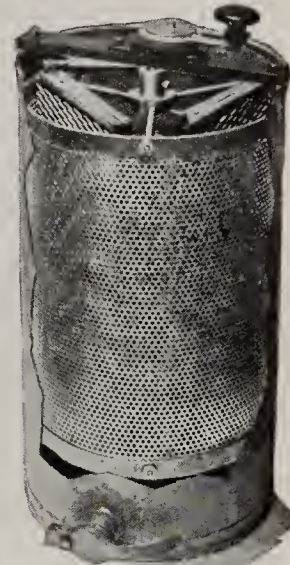
Root Collapsible Bee-Hat

Designed especially for beekeepers' use. 256, Root Bee-Hat (weight 4 ozs.), 80 cts. each.

Extract Your Honey

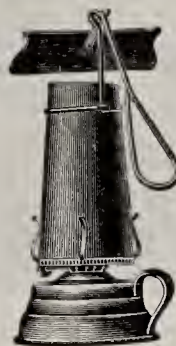
ROOT'S THREE-FRAME HONEY EXTRACTOR AND CAPPING DRYER

This machine holds 3 frames at a time and has the same ball-bearing construction as other Root extractors. The supports at the side of the combs are quickly removed. The cappings can then be dumped into the big reel which is a perfect cylinder. Cappings are spread out evenly around the reel when the machine is operated, and the honey is easily thrown out of this thin layer. 4035, Pocket size, 9 1/2 x 16 inches (weight 50 lbs.) \$14.45.



Hive Tool

This tool is indispensable in scraping frames and prying them loose. 404, 8-in., 48 cts.



Root Foundation-Fastener

The cut at the left shows the Root Foundation-Fastener with lamp. It is a very rapid tool and gives excellent results where a cheaper tool is wanted. 415, Root Fastener with lamp (weight 8 ozs.), 60 cts. each. 416, Root Fastener without lamp (weight 2 ozs.), 20 cts. each.

Double Exit Bee-Escapes

In taking off honey the Bee-Escape is the greatest labor-saver ever invented. It frees the supers of bees so that no shaking of heavy supers or smoking is necessary. 411, Double Escape, without board 13 cts. each. 22676, Porter Board with Double Escape, nailed (weight 2 lbs.), 55 cts. each.



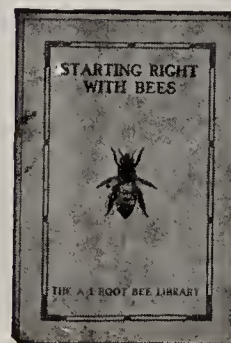
Spur Wire-Imbedder

This is an excellent device for imbedding the wires of frames into the sheets of foundation. The teeth are broad and blunt so there is no danger of weakening the foundation.

401, Spur Wire-Imbedder (weight 3 ozs.), 20 cts. each.

Wire for Frames

This Wire is used to hold foundation or combs securely in the frames, and at the same time reduce the danger of sagging. 670 feet are required for 100 Hoffman frames. 447, 1/2-lb. spool tinned wire, 700 feet, 27 cts. each.



Starting Right with Bees

The best beginners' book that is on the market. It was written by the editors of *Gleanings in Bee Culture*.

128 Pages

124 Illustrations

BEAUTIFUL FABRIKOID COVER

50c.

Above prices do not include postage. If wanted by parcel post, add postage at your parcel post zone rate, using weight given in connection with each article

Poultry and Pet Supplies

FROM the leading manufacturers of national reputation we have selected the best and most up-to-date products for the raising and care of poultry and pets, for either profit or pleasure. It has always been our aim to offer quality merchandise at a fair price rather than bargain goods at a catch price. On the strength of this policy we present in the following pages a complete line of supplies and equipment for poultry and pets. We shall be glad either to serve you personally in the store or to give your mail or telephone orders our most careful attention.

THE I. W. SCOTT COMPANY.



Poultry Supplies

Our stock of Poultry Equipment and Supplies includes everything necessary for the successful rearing of poultry, from the smallest chick-feeder to the largest brooder. Brooders—coal, gas, oil, and electrically heated, with a capacity ranging from 50 to 1000 chicks; Feeders, Fountains, Grain Sprouters, Feed Grinders, Feeds, Remedies, and many other necessities for profitable poultry-raising are included.

BABY CHICKS

You cannot afford to be too particular in the purchase of Baby Chicks, in knowing that they are from well-bred flocks and will develop true to type. Remember this—a Baby Chick is no better than the foundation stock from which it was hatched. We exercise extreme care in the selection of our Baby Chicks and supply only Chicks from selected matings and blood-tested flocks, under state supervision. We can supply all popular breeds. We also make a specialty of White Pekin Ducklings and Bronze Baby Turkeys. We suggest placing your order in advance, specifying the date you want delivery. Price-List gladly sent upon request.



Pet Supplies

Whether you are an extensive breeder of dogs, a dog fancier, or the owner of a single dog, you will want your animal to have a healthy body, a clean coat, and an alert mind. We have whatever you need for the care and feeding of your dog, and we are fully prepared to help you keep him in good condition. Our line of feeds and remedies for dogs, puppies, cats, and feathered pets is highly specialized and meets every need and requirement.

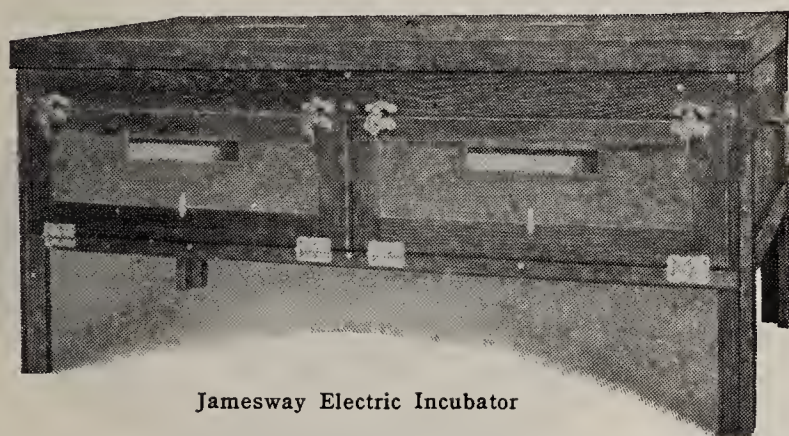
In addition to the goods shown in this Catalogue, we have a representative line of Dog Blankets and Sweaters, Collars, Harnesses, Kennels, Baskets, and Brushes. We also have Bird-Cages and Fish Aquariums. Since this merchandise is too diversified to be included in the Catalogue, we invite you to call at the store and inspect it personally.

Hatch Chicks the Electric Way with a Wilson's Home Hatchery

A Sensational Development in Incubators

A Wilson Incubator will save you more money than any measures of economy you could inaugurate on the poultry-farm. It will pay for itself in two or three hatches. Sturdily built of the best materials, it has many exclusive features: circulating air, automatic temperature control, patented heater, and moisture indicator and control. The machine can be used for continuous hatching; all or any part of the capacity can be used. The operating cost is low—about 60KW hours of electricity will complete the hatch in the 600-egg size. Equipped for 110-volt A. C. current, but can be furnished with other motor specifications. Shipped complete ready to plug in socket.

Capacity		Capacity	
384 eggs.....	\$49 00	1,200 eggs.....	\$107 00
600 eggs.....	68 00	2,100 eggs.....	172 00



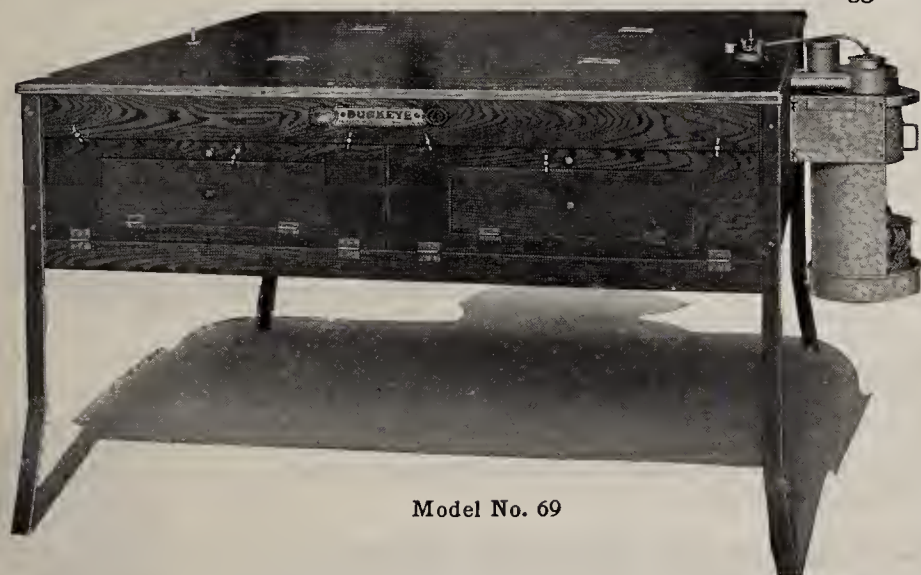
Jamesway Electric Incubator

surprisingly reasonable price. The most dependable electrical heating units are used. Automatic thermostatic control cuts out within one-half a degree, thus maintaining very even temperature. Ventilation and moisture easily and simply controlled as desired by the operator. Positive egg-turning mechanism and trays, simple in design and strong construction. It is 58½ inches long, 29½ inches wide, and it stands up 30 inches from the floor. Can be had for 110- or 220-volt current. No. 688, \$65.

ASK FOR A SPECIAL CIRCULAR

Buckeye Standard Incubators

With New Automatic Egg Turners



Model No. 69

	Capacity	Weight	Price
No. 65.	75 eggs	53 lbs.....	\$18 50
No. 66.	143 eggs	113 lbs.....	39 50
No. 67.	286 eggs	175 lbs.....	57 75

Hatch Your
Own Chicks
with the

Jamesway Electric Incubator

Here is the ideal Incubator for the person who wants to start small and grow by adding units without discarding the original equipment. The new Jamesway Electric Incubator has a capacity of 360 eggs. Additional 360-egg units can be added as needed. You never have to throw away or discard units as your business grows. Built with the very best of materials and skilled workmanship. Jamesway offers you this insulated electric Incubator, including all tried and proven mechanism of the very latest and most efficient type, at a

surprisingly reasonable price. The most dependable electrical heating units are used. Automatic thermostatic control cuts out within one-half a degree, thus maintaining very even temperature. Ventilation and moisture easily and simply controlled as desired by the operator. Positive egg-turning mechanism and trays, simple in design and strong construction. It is 58½ inches long, 29½ inches wide, and it stands up 30 inches from the floor. Can be had for 110- or 220-volt current. No. 688, \$65.



Wilson's Home Hatchery

The line of Buckeye Incubators affords a range of capacity from 75 to 576 eggs. This meets the demand expressed today by users of domestic Incubators. All the machines are constructed of cypress—the best material ever found for Incubators—and are finished in natural grain, with the most durable of varnishes.

The four larger models have double walls, with heavy insulating material between, assuring retention of heat with the utmost fuel economy.

The Buckeye Patented All-Metal Thermostat insures absolute regulation of temperature. It is absolutely reliable.

The heating-tank is built of heavy copper.

Underwriter's Label on all models, except No. 65, as a warranty against fire-hazard. All Buckeye Incubators, except No. 65, are equipped with Buckeye Automatic Egg-Turners. The tray is strongly and simply constructed and there's nothing to get out of order. Egg-Tester and Thermometer furnished free with each Buckeye Incubator.

	Capacity	Weight	Price
No. 68.	416 eggs	205 lbs.....	\$76 50
No. 69.	576 eggs	270 lbs.....	97 50



The Jamesway Brooder

Don't take chances. Your whole success depends on the chicks you raise. And that means, very largely, the Brooder you use. The Jamesway is the only Brooder that has a special air-purifier and also an air-moistener—two exclusive Jamesway features.

Jamesway brooded chicks grow faster and stronger because they do not breathe over and over foul, flat, lifeless air.

The Jamesway is the only Brooder with an automatic fire-control damper located in the pipe. The damper works automatically with the draft and check dampers. No overheating, then chilling of chicks. The Jamesway furnishes a steady, even fire all the time. The heat-radiation surface of the Jamesway Brooder is nearly doubled by the use of seven radiation fins running completely around the body of the stove. In this way, more heat is thrown off with a given amount of coal than without this extra heating surface.

The hover revolves completely around the pipe on a cast-iron collar, giving strength and rigidity. Two doors are provided. The one above drops down for coaling. The door below tilts upward for tending fire, cleaning out ashes, rearranging litter or cleaning. Both sizes are made for 4-inch stove-pipe.

No. 652. Coal capacity about 35 pounds, 52-inch hover. Usual rating for this size stove is 500 to 1,000 chicks but from 400 to 500 chicks is recommended in a brooder-room 8 to 12 feet square. \$22.50.

No. 660. Coal capacity about 45 pounds, 60-inch hover. Usual rating for this size stove is 1,000 to 1,500 chicks but from 300 to 800 chicks is recommended in a brooder-room 10 to 18 feet square. \$23.50.

DESCRIPTIVE CIRCULAR ON REQUEST

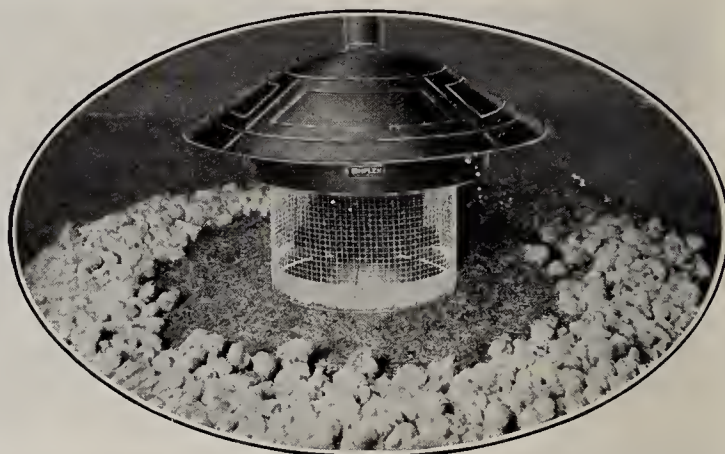
Simplex Brooder Stove

Successfully Broods Chickens, Turkeys, or Pheasants

The Simplex is constructed with heavy cast-iron base and burner, with steel legs. The body of the Stove is made of heavy black sheet steel. It has a large circulating radiator on the top, around which the heat from the burner must pass before escaping. The heat is caught by the deflector which covers and extends over the top of the radiator, so that all the heat is deflected to the floor and not allowed to go to the ceiling until it has warmed the backs of the chickens.

The Simplex Burner is especially designed to make "going out" impossible. All conditions of back-firing are removed, which insures perfect safety. It is capable of giving any range of heat desired. It can be regulated to run as low as the ordinary house-lamp and will go as high as necessity requires, and will not go out under either regulation.

SIMPLEX RADIATOR AND DEFLECTOR. These are fuel-saving features of this Stove. Every heat unit must make a complete circle around the body of the Stove through the radiator before its work is done and it is allowed to escape through the stove-pipe. The oil-consumption is from 1 to 5 gallons per twenty-four hours, depending on the size Stove and time of year that you are brooding your chicks.



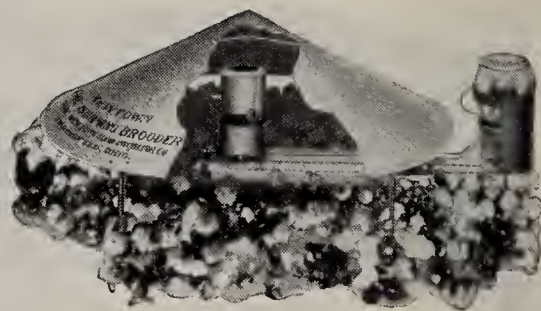
Size	Capacity	Diam. of Deflector	Height of Stove	Diam. of Radiator	Diam. Fire-Cyl.	Price
Gem	500 Chicks	36 in.	23 in.	23 in.	12 in.	\$22 00
Junior	750 Chicks	35 in.	26½ in.	23 in.	12 in.	26 00
Senior	1,000 Chicks	41 in.	29½ in.	28½ in.	14 in.	29 50
Junior for Gas	500 Chicks	35 in.	26 in.	23 in.	12 in.	23 00
Senior for Gas	1,000 Chicks	41 in.	29 in.	28½ in.	14 in.	26 50

SPECIAL CATALOGUE ON REQUEST

The Newtown Blue Flame Brooder

This Brooder has been especially designed for late winter and spring brooding where houses are well constructed and temperature does not go below the freezing-point. It has a most efficient burner, is economical to operate, easily controlled, and has proved most successful in the hands of thousands of poultry-raisers. All parts of Brooder are accurately made of durable materials.

Model	Capacity	Diam. of Canopy	Price
No. 500.	250 Chicks	34 in.	\$13 00
No. 501.	350 Chicks	42 in.	14 00
No. 502.	500 Chicks	52 in.	15 00

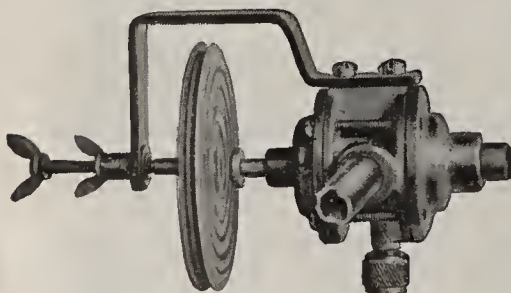


MaKomb Automatic Gas Valve

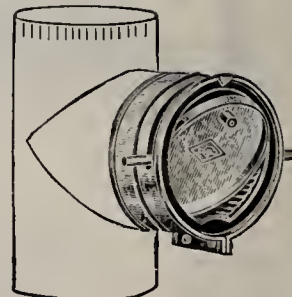
Very sensitive and efficient in operation. Can be used on any gas-burning brooder. Has brass diaphragm; the body is an alloy die casting and the valve-stem is carefully machined brass. It cannot leak. No. 4. \$3, postpaid \$3.10.

Draft-A-Justor for Brooder Stoves

An ingenious device which will automatically maintain a constant uniform draft in any heater, coal- or oil-burning, regardless of wind or weather conditions. Easily installed on any smoke-pipe. Diameter 4 in. No. 449. \$1, postpaid \$1.10.



MaKomb Automatic Gas Valve



Draft-A-Justor

Newtown Colony Brooders

Will Raise Every Raisable Chick—Ask Any Owner

The Newtown Coal-burning Brooder has the reputation of being the most efficient Brooder made. It needs no introduction to poultrymen. It was the first coal-burning, self-feeding, self-regulating Colony Brooder put on the market, having been longer in use than any other of its type. It is giving efficient service in every state in the Union and eleven foreign countries, and represents the modern up-to-date Brooder in the highest form of development. It is durable, easy to operate, safe, economical, and labor-saving.

Construction. Made of best-grade, heavy, heat-retaining castings.

Easy to Operate. Nothing complicated—full instructions furnished with each Brooder. Automatic regulator controls the drafts and no change in weather is too sudden for its adjustment.

Safe. Hot coals cannot roll out of the ash-pit door into litter. Has a double bottom, with dead-air space, and a heavy metal casting which prevents chicks from scratching litter against the hot fire-bowl.

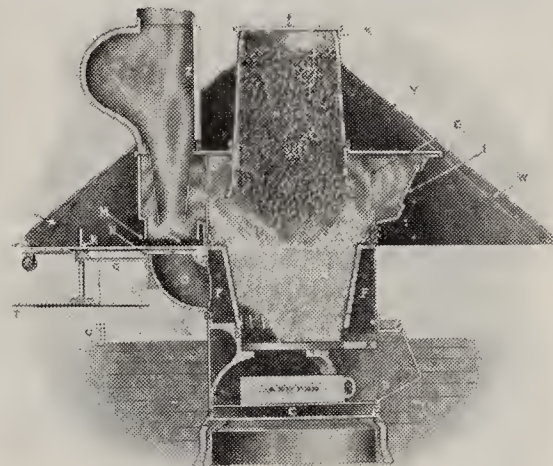
Economical. Built to last a lifetime. Fire-pot and combustion chamber designed to burn all gases, greatly reducing fuel cost.

Labor-Saving. Requires little attention. Magazine holds sufficient fuel to last 24 to 36 hours. Turning one small adjusting nut enables one to secure any desired temperature. Deflector is not disturbed in coaling. Hinged deflector lid gives easy access to ash-pit door. Smoke-box ell prevents soot or other foreign matter from falling down smoke-pipe and interfering with draft regulation.

Big Exclusive Features

Note the cross section view of the Newtown Coal Brooder opposite. When you think of these features you can see how Newtown is built to brood chicks under every emergency. It cares for all your chicks regardless of weather conditions; burns a good grade of soft coal satisfactorily, as well as hard coal; holds the fire and does not require constant attention. You don't have to get up at night to see if your chicks have enough heat. They're always safe and warm with Newtown.

Model	Chick Capacity	Coal Capacity	Diam. of Hover	Diam. of Grate	Weight Crated	Price
No. 11.	Up to 500	48 lbs.	50 in.	11 in.	206 lbs.	\$32 50
No. 12.	Up to 1,000	65 lbs.	56 in.	15 in.	306 lbs.	40 00



MaKomb Elect-O-Stat Brooder

This Brooder is equipped with an oversized heating element which insures a more uniform distribution of heat under the canopy and holds the desired temperature despite a suddenly cold room. The heat is constantly regulated by an automatic snap switch with a positive, quick make-and-break action. Canopy is of galvanized steel, 52 inches square, with 35-degree pitch which does not allow fowls to roost on it. Has efficient ventilator to insure the comfort and health of the chicks. No. 452, \$22.50.

Jamesway Battery Brooder

This new Jamesway Battery Brooder is a distinct contribution to the poultry industry. It permits the poultryman to raise his chicks quicker and with less work than without one. You can place day-old chicks in the Battery Brooder, and, as they get larger, the Broiler fronts can be installed without moving chicks. There are two tiers of five sections each in this Battery, which will hold 1,000 day-old chicks. Each section operates independently and has an automatically controlled electric heating unit which extends across the top of each section, thereby giving an even distribution of heat.

The clearance of 1 3/4 inches between the floor-screen and removable droppings-pan helps to make this Battery Brooder easy to keep clean. There is plenty of feeding-space, as over-size pans are located both front and rear, giving space for 100 chicks to feed. These pans are easily removed and cleaned; the same can be done with the large-sized watering-trough which can be placed over the feed-trough or attached to the side of each section. Feed- and water-openings are adjustable to accommodate large or small chicks.

The heating connection for each unit is located in the corner post and can be reached quickly without trouble. You need to heat only the sections where the chicks are and turn on heat in other sections only as chicks are added. These heating units operate on 110 or 220-volt A.C. or D.C. current. Can be used without electric heating units if used in a heated room.

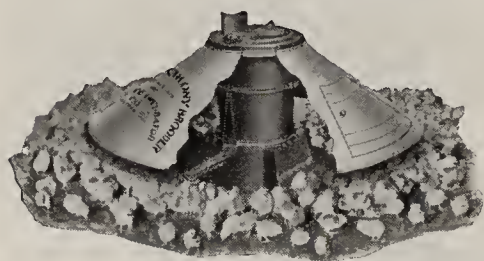
Over-all size 30 by 58 by 71 inches, mounted on substantial truck which makes it portable. Shipped knocked down for freight savings, but easy to assemble.

No. 627. Battery Brooder, with heat elements.....	\$123 00
No. 628. Single Section, with heat elements.....	11 00
No. 1181. Wire Broiler Fronts (20 required for complete battery).....	45



For very large broods of chicks, Jamesway has designed a continuous hot-water brooding system, built to take care of any size flock and to fit in any building. Write for prices.

The Buckeye Coal-Burning Brooder



A Brooder that burns hard or soft coal, is self-feeding, self-regulating, simple and safe. Nothing to break—built for long life. Equipped with a double automatic regulator that accurately controls the temperature every minute of the day and night. Stove is of heavy cast iron, equipped with rocker grate. Self-cleaning and anti-clog. Painted gray and trimmed in red, giving them very attractive appearance.

These Brooders are equipped with a revolving canopy, with large door, eliminating the canopy bail, rope, and pulleys and permitting easier cleaning around the Brooder. Note the following coal capacity, size and weight of stoves, diameter of canopies, size of grates, and compare them with other coal-burning stoves of the same chick capacity on the market today. Note the new low prices—lower than ever before.

	Capacity	Diam. of grate	Diam. of canopy	Coal capacity	Smoke pipe	Shipping weight	Price
No. 117.	350 chicks	8 $\frac{1}{4}$ in.	42 in.	25 lbs.	4 in.	77 lbs.	\$15 00
No. 118.	500 chicks	9 $\frac{3}{16}$ in.	52 in.	40 lbs.	5 in.	102 lbs.	17 50
No. 119.	1,000 chicks	10 $\frac{9}{16}$ in.	56 in.	60 lbs.	5 in.	133 lbs.	22 50
No. 120.	1,200 chicks		60 in.	75 lbs.	5 in.	145 lbs.	26 50

Any of the above Brooders equipped with gas burner in place of coal-grate at same price

The Buckeye Improved "Rite-Heat" Brooder



A Brooder that will take care of baby chicks in large numbers just as satisfactorily and under the same wide range of conditions as secured with Buckeye Coal-burning Brooders. It can be operated at almost any temperature and depended upon to supply the correct amount of heat for brooding purposes. There is no limit to the heat it can produce and it will care for chicks in a room of any size or temperature. Large Capacity—Simple—Efficient—Economical—Low Oil Consumption—Dependable Regulation.

The burners are made of cast iron and consist of only three pieces. They are completely assembled and attached to stove before leaving factory.

The thermostatically controlled regulator is the simplest, most dependable ever devised for Brooder use. It responds instantly to the slightest change. After it is once set, it needs practically no further attention. The oil-tank has a capacity of 6 gallons. It holds a supply sufficient for many hours, even in extremely cold weather.

	Capacity	Diam. of canopy	Shipping weight	Price
No. 103.	500 chicks	52 in.	111 lbs.	\$29 50
No. 104.	1,200 chicks	62 in.	119 lbs.	31 50

MaKomb Oil-O-Stat Brooder

A finely finished drum-type Brooder, entirely capable in performance. Heater is heavy blued steel mounted on sturdy cast-iron legs. Canopy is hexagon shape and made of galvanized steel mounted into a ring made of heavy steel. Burner is easily cleaned by means of handle protruding at the top of the drum. Equipped with overflow pipe, heat-deflecting shield and burner drip-pan; positive shut-off cock at valve, and automatic draft-adjuster. Capacity of tank, 9 gallons.

	Capacity	Diam. of canopy	Shipping weight	Price
No. 2130.	Up to 600 chicks	30 in.	51 lbs.	\$12 90
No. 1956.	Up to 1,200 chicks	56 in.	85 lbs.	19 80



MaKomb Automatic Gas Brooder

The MaKomb Gas Brooder is built for use in those localities where natural or artificial gas is available to the poultryman. This Brooder is provided with the new hexagonal canopy, firmly supported on legs. The automatic valve-construction has been held to close limits, and every precaution taken to insure perfect operation. The burner is mounted on a heavy base and is especially designed for use with either natural or artificial gas, giving perfect combustion with either one.

	Capacity	Diam. of canopy	Weight	Price
No. 129.	150 chicks	29 in.	22 lbs.	\$6 95
No. 347.	250 chicks	45 in.	27 lbs.	8 95
No. 356.	500 chicks	55 in.	31 lbs.	10 50
No. 4. Automatic Gas Valve only. Use on any Gas-burning Brooder. 3 00				



Hard Coal For Brooder Stoves

We furnish Chestnut-size Hard Coal, suitable for Brooder Stoves, put up in 100-lb. bags at \$1.35 per bag, f.o.b. Pittsburgh. Prices subject to market change. See page 156 for prices on pipe and other supplies for Coal-burning Brooders.



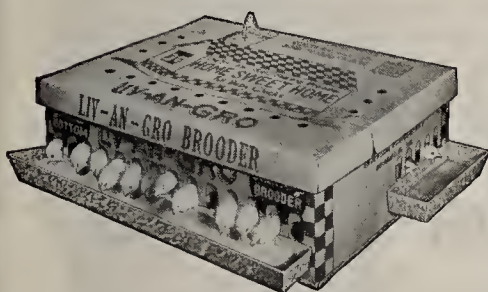
Oakes Electric Incubator and Brooder

The Oakes Electric Hen presents the very latest and most improved inventions in artificial incubation. Simply attach to a light socket, adjust the heat with the automatic thermostat, and the heating requires very little attention for the entire hatch. The cost of heating is surprisingly small in a room of ordinary temperature. The heating element in the top distributes the heat evenly throughout the chamber. Regulator automatically turns the current on and off as required.

The top of the Incubator can be used as an Electric Brooder when through hatching. Made for 32-volt, 110-volt or 220-volt alternating or direct current, but in ordering *be sure to specify* both voltage and kind of current that you are going to use. Furnished complete with thermometer, Brooder Curtains, Egg-tester, and Legs.

No. 87.	60-egg size.....	\$12 25	Postpaid \$12 60
No. 88.	100-egg size	15 75	16 25

Liv-an-Gro Brooder



Give your chicks the right start and you are practically sure to raise every one of them. The Liv-an-Gro is so convenient and sanitary it assures you of success. Both cover and body are made of heavy water-proof corrugated board. Has large, removable feed- and water-pans.

Free circulation of air is provided by the wire screen floor. An ordinary 40-watt electric light bulb supplies ample and uniform heat. Furnished with lamp socket, 6 feet of extension cord and plug connection. (Bulb is not furnished.)

No. LG-2.	Capacity 50 day-old chicks.....	\$1 95	Postpaid \$2 15
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MaKomb Gro-Mor Brooder

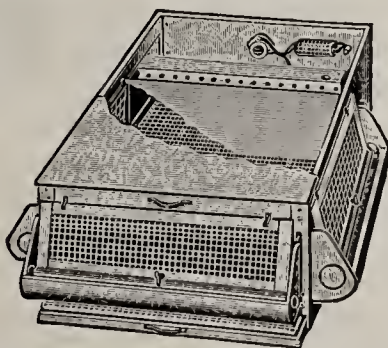
It is unbelievably easy to raise chicks in a Gro-Mor. Nothing could more ideally meet the need of the small flock owner or the specialty breeder. The sides are galvanized steel. Feed and water openings are readily adjusted to retain the smallest chicks. Both feeder and waterer are unusually large and readily detached for refilling. Top is a heavy fiber board. The floor area is 24 x 24 inches; the headroom 7 inches. The 40-watt heating element develops ample heat in rooms 50° or above.

No. 624.....	Capacity 50 day-old chicks.....	\$3 45	Postpaid \$3 75
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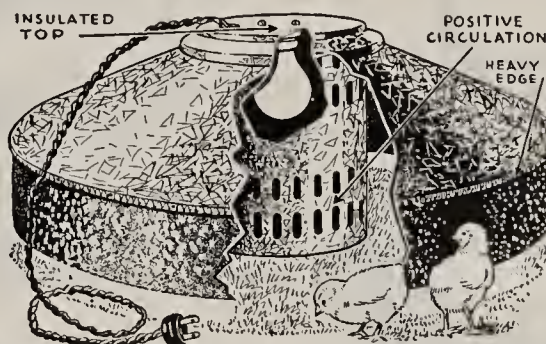
Oakes "Gro-Ezy" Electric Brooder

This Brooder has every feature necessary to raise big, husky, healthy chicks quickly. Ample feed- and water-troughs on three sides provide the chicks with plenty of feeding-space. Equipped with patented heating element controlled by an automatic thermostat. Made entirely of metal. Easily cleaned and sanitary.

Ideal to start a few chicks in the basement or some unused room in the house. Measures 22½ inches wide, 35 inches long inside, and has 9½ inches of head-room.



No. 801.	Capacity 100 day-old chicks.....	\$8 85	Postpaid \$9 45
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The Baby Grand Electric Brooder

For small flocks, the Baby Grand is practical and economical. A 25-watt bulb provides ample heat for general use and with outside air touching freezing; a 40-watt bulb will maintain brooding temperatures. A galvanized steel drum encloses the bulb, preventing glare and producing steady circulation of the air throughout the Brooder. The canopy is of the best galvanized steel, insulated above the heater with ½-inch Masonite, which withstands long and hard use. The heavy, hemmed curtain is slit for chick convenience and may be easily removed for cleaning. Complete with 6 feet of cord and screw plug but without bulb.

No. C1.	Capacity 75 chicks	22 in.....	\$2 50	Postpaid \$2 75
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Jamesway Electric Hover

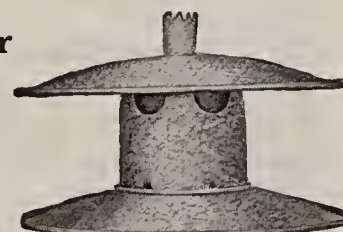
Broods chicks with no smoke, gas, or ashes. A very well-built Hover having double-shell canopy, with heavy insulation between. Single feed-line with 200-watt ring heating element thermostatically controlled. May be set at desired temperature. A special safety spring is provided for wafer protection; all regulator points enclosed for safety. Air vent-pipe through center. Rubberized, removable curtains. Sets on metal legs. Intended to be used in a warmed room.



No. 698.	Capacity 50 to 150 chicks	Diameter 32 in.....	Postpaid \$9 95
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Putnam Brooder Heater

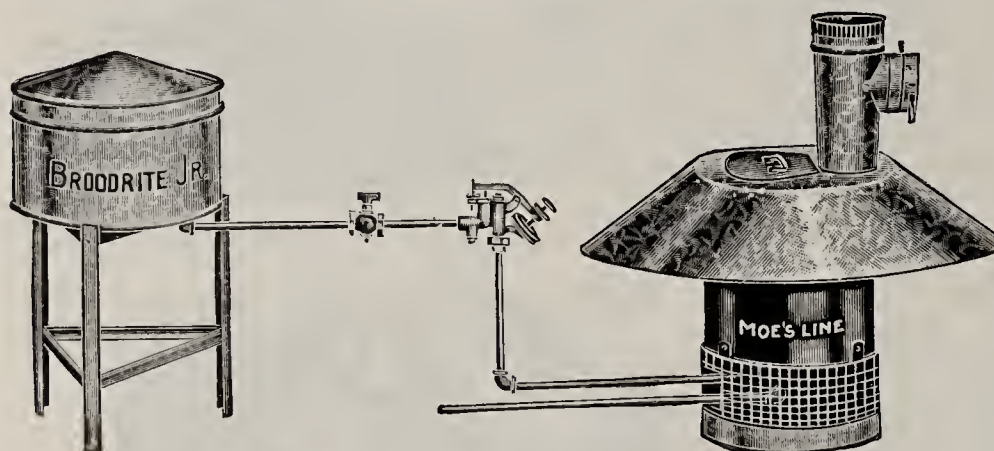
The Putnam Brooder Heater is the heating plant for the Putnam Home-Made Brooder. Directions for making this brooder at trifling cost are packed with every Heater. The Heater is made entirely of brass and galvanized iron and is practically indestructible. It holds one quart of oil and burns from eight to ten days without refilling or any other attention. It is firesafe and foolproof. Tens of thousands of Putnam Brooders have been built and used with success.



Price \$4.75 postpaid

Moe's Broodrite Junior Oil Brooder

ECONOMICAL TO OPERATE AUTOMATIC CONTROL LARGE CAPACITY



An efficient, safe, and economical Brooder which provides the same abundant heat as a coal Brooder, with a big saving in labor in handling fuel and ashes. Burns with a clean flame, which is evidence that no fuel is being wasted and that the full benefit of all the heat units in the oil is being utilized. The heat is automatically regulated by a thermostatic control, so that an even, uniform heat is maintained under all conditions. Burns low-priced furnace oil or kerosene, with a clean, hot flame free from carbon or soot.

The canopy is of heavy, galvanized steel, 30 inches in diameter, and can be lifted up to give free access to the stove. Tank holds 5 gallons of oil. Furnished complete as illustrated.

An all-round, high-class Brooder at a price you can afford to pay **\$9.95**

Monitor Revolving Head Ventilator

Made of the best grade of heavy galvanized steel and has full ball-bearing head. Weather-proof and freeze-proof construction. Can be fitted to any pitch of roof. Flue 12 in., base 16 x 16 in., height 36 in. No. K12. \$6.50.

Ney Stationary Head Ventilator

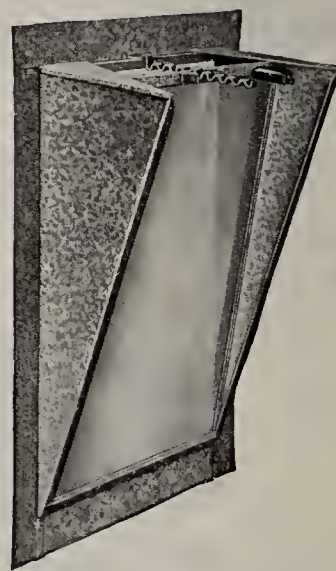
Designed especially for poultry houses, hog-houses, and other small houses. Made of heavy galvanized steel and strongly braced. Flue 12 in., base 16 x 16 in., height 28 in. (Not illustrated.) \$8.

Klauer Ventilating Wall Window

For barns, poultry houses, hog-houses, or any other frame building where light and ventilation are desirable. Made of 26-gauge galvanized steel. Latch permits glass to be tilted into eight different positions. Window may be locked securely. Glass 20 x 28 in., building opening 20 3/8 x 28 3/8 in., overall size of frame 25 1/2 x 33 3/4 in. No. K2028. \$2.50 each, \$13.50 for 6, \$26 per doz.



Monitor Ventilator



Ventilating Wall Window

Moe's Adjustable Roof Saddle

Made of galvanized iron and adjustable to any required angle from an almost flat roof to one-half pitch. Quickly adjusted and locked rigidly in the desired position. Size of flat roof flange 14 by 18 inches and made in two sizes for 4 and 5-inch brooder pipe. The small end of regular pipe is slipped underneath the Saddle, and as many lengths of pipe as desired can be placed on top of the Saddle.

	Each	Postpaid
No. 440. For 4-inch pipe.....	\$1 25	\$1 35
No. 441. For 5-inch pipe.....	1 35	1 45

Smoke-Pipe Top Cap

Chimney Cap for brooder stove-pipe. Made of galvanized steel, to slip on the top of regular pipe. Keeps out rain and snow and improves the draft. Easy to install; no tools or bolts required.

	Each	Postpaid
No. 444. For 4-inch pipe.....	\$0 30	\$0 40
No. 445. For 5-inch pipe.....	35	45

Smoke-Pipe for Brooder Stoves. Blue Steel in 2-ft. lengths, 4-in. diam., 18 cts. per length; postpaid, 23 cts. 5-in. diam., 20 cts. per length; postpaid, 25 cts.

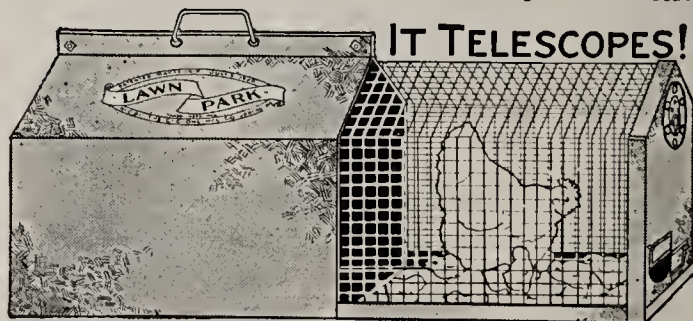
Cast-Iron Dampers. For 4-in. pipe, 15c. ea.; for 5-in. pipe, 17c. ea. **Elbows, Crimped.** 4-in. diam., 15 cts. each; postpaid, 18 cts. each. 5-in. diam., 17 cts. each; postpaid, 20 cts. each.



The LAWN PARK Brood Coop

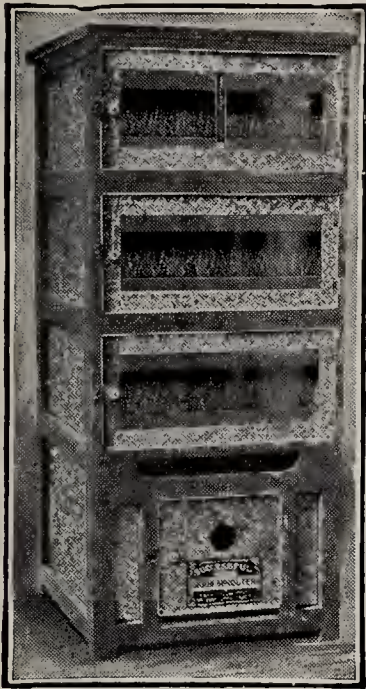
SAVES THE CHICKS

IT TELESCOPES!



Patented May 13, 1919

It is made entirely of galvanized materials, will not rust, and absolutely protects chicks against rats, cats, dogs, hawks, vermin, cold, storms, and all other chick enemies. The main part of the Coop is made from heavy galvanized steel, while the Park is made from strong galvanized wire screen, which has the edges neatly bound and strongly reinforced with galvanized steel. The Lawn Park is large and roomy, being 18 inches wide, 19 1/2 inches high, and 48 inches long, with Park extended. The Coop and the Park are of equal length. The Park permits the chicks to have plenty of sunshine and fresh air, and also allows them to range on grass. Coop has removable bottom for quick and easy cleaning. Price \$3.50 each.



"Successful" Grain-Sprouter

"Successful" Grain-Sprouter

The feeding of sprouted oats is highly endorsed by the poultry experts of the agricultural experiment stations, because grain fed in a sprouted condition is easily digested, goes three times as far, and is therefore much cheaper and better than when fed in a dry condition.

The walls, top, and bottom of the Successful Grain-Sprouter are constructed of 28-gauge galvanized steel. This material will not rust, rot, shrink, or warp. The framework is of 1 $\frac{5}{8}$ x $\frac{3}{4}$ -inch wood. All wooden parts are outside the steel walls; thus, the heat from the lamp cannot touch the framework directly. Trays are made out of one solid piece of galvanized steel, punched with plenty of holes to provide drainage and ventilation. Furnished with safety lamp. Sprouter may be operated anywhere with absolute safety.

PRICES AND CAPACITIES

No. 1. Base and 1 section; 2 trays; holds 8 to 10 quarts dry grain. (For 30 to 60 hens).....	\$10 60
No. 2. Base and 2 sections; 4 trays; holds 16 to 20 quarts dry grain. (For 75 to 100 hens).....	13 00
No. 3. Base and 3 sections; 6 trays; holds 24 to 30 quarts dry grain. (For 130 to 200 hens).....	15 40
No. 4. Base and 4 sections; 8 trays; holds 32 to 40 quarts dry grain. (For 250 to 350 hens).....	17 80
No. 5. Base and 5 sections; 10 trays; holds 40 to 50 quarts dry grain. (For 400 to 600 hens).....	20 20
Each additional section and two galvanized all-steel trays.....	3 60

Moe's Lampless Oat-Sprouter

Made entirely of metal. Strong and rigid.

Provides the very necessary green feed at all seasons. Healthy chickens and more eggs.

The frame is of steel, well braced and neatly painted. Has six heavy galvanized iron pans. Five of the pans have perforated bottoms to secure the proper drainage, and the bottom pan is solid to hold the drippings. Pans are interchangeable. Sectional frame can be quickly taken apart and stored in a small place. Total height of frame, 3 feet. Size of pans, 16 by 18 inches. (Not illustrated.) No. 110, \$4; postpaid \$4.35.

Banner Root-Cutters

Vegetables, such as cabbage, carrots, turnips, mangels, beets, and potatoes, furnish the essential green-food vitamins during the winter months.

With a Banner Cutter to quickly and easily cut and shred vegetables, the poultry-raiser is fully equipped to keep up his green-feed rations during the months when his flocks are confined in winter quarters.

No. 7. Cuts fast and is easy running. Leaves feed in fine, ribbon-like strips. Makes choking impossible. Enough feed for a large flock of birds can be cut in two to five minutes. Price \$7.85.

No. 28. Intended for large poultry flocks, sheep, or lambs. Eight wide steel knives, fitted to 28-inch platter plate, gives great cutting capacity. Hopper is shaped for self-feeding. Capacity of hopper, 2 $\frac{1}{2}$ bushels. Designed more particularly for power operation, but can be operated by hand. Shreds into ribbons but knives can be reversed to cut in flat pieces if desired. Price, including Pulley and Hand Crank, \$37.50. (Not illustrated.)

Ohio No. 771 Poultry Feed-Cutter



Ohio No. 771 Poultry Feed-Cutter

This Cutter was designed to meet the demand of the poultryman for a large-capacity machine. Its wide throat and the ample raise of the feeding-roller insures a volume of work that is limited only by the energy of the operator. A bushel of hay can be readily cut in 25 seconds. It is made of best materials throughout, with guard over gears. Has four 11 $\frac{1}{4}$ -inch high-carbon tool-steel knives. It will cut as short as $\frac{1}{8}$ inch, or short enough for small chicks, and will handle all kinds of rough feed, green or dry, such as clover, alfalfa, vegetable tops, hay, straw, cornstalks, etc. Lengths of cut, $\frac{1}{8}$ -, $\frac{1}{4}$ -, $\frac{3}{8}$ -, and $\frac{1}{2}$ -inch lengths with four knives; double these lengths with two knives. Shipped knocked down. Weight, 195 pounds. Choice of 8 x 3 or 10 x 3-inch pulley can be furnished. Price \$35; Pulley \$1.50 extra.

Efficiency Grain-Sprouter (OPERATES FREE FROM MOLD)

This Sprouter is not an experiment but has stood the acid test and has revolutionized grain-sprouting. The dry grain is poured into the sprouting-drum and allowed to soak in the soaking-trough for from four to six hours, when it is placed in the rack. Start one drum in this way each day. At the end of the fourth day the first drum will be full and

ready to feed. Owing to the exclusive patented features, no lamp is necessary. It can be operated in any heated room in the winter and indoors or outdoors in the summer.

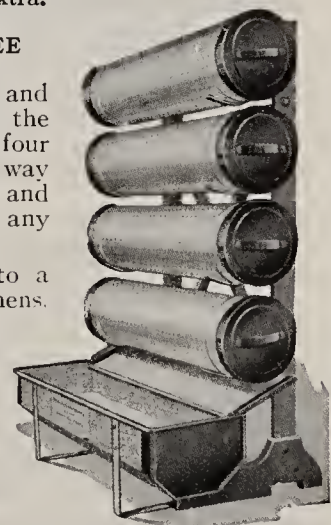
The Efficiency No. 3. The most popular model. It consists of four 1-bushel sprouting-drums attached to a sturdy frame, and soaking-trough large enough to soak one drum at a time. Intended for 900 hens. Stands 50 inches high, and takes 18 by 39 inches of floor-space. Price \$24.45.

The Efficiency No. 2. This model is the same as No. 3 except that it is only half as large in capacity. It has four $\frac{1}{2}$ -bushel sprouting-drums, trough, and frame. It turns out $\frac{1}{2}$ bushel of sprouted oats per day and is intended for 450 hens. Price \$21.40.

The Efficiency No. 3A. Exactly like the No. 3, but has no stand, and is intended to be used where the equipment can be secured to a wall. Takes 10 by 39 inches of floor-space. Price \$20.40.

The Efficiency No. 2A. Same as the No. 3A, except the drums are $\frac{1}{2}$ -bushel capacity, or the same as the No. 2 in capacity. Takes 10 by 22 inches of floor-space. Price \$17.40.

The Efficiency Little Wonder. Intended for flocks of 120 hens or less. Takes 12 by 15 inches of floor-space. Price \$12.90.



Efficiency Grain-Sprouter

Mann's Green Bone-Cutters

THE LAYING HEN IS THE PAYING HEN

The poultry-raiser wants eggs, and wants them when eggs are worth the most. Green bone and raw meat produce them. There is no doubt about that. Experience proves it; science shows why.

The hen will do her part if you give her a chance. The Mann's Bone-Cutter gives you a chance to give her a chance. It gives you a better chance than does any other bone-cutter.

Mann's Green Bone-Cutters have been sold for more than fifty years, and there are more of them in use today than of all other makes combined. We have sold them for many years and have yet to find a dissatisfied customer. Every machine is guaranteed, and must do the work.

No. 5-B. This Hand Bone-Cutter is designed for the small poultryman with flocks of 15 to 25 hens; can be used for 50. Weight 60 lbs. Price \$15.

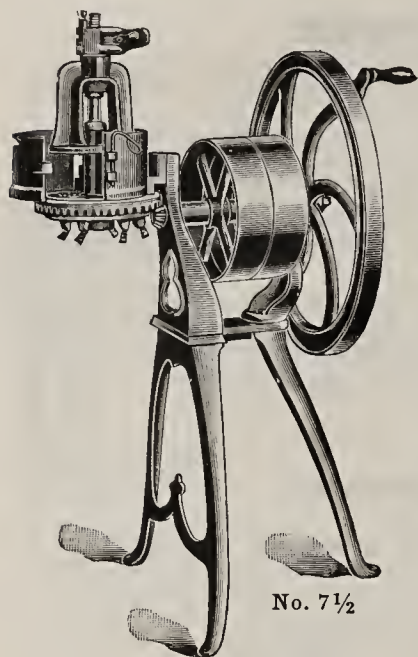
No. 7½. Combination Hand and Power Bone-Cutter. Can be run either way without change of parts. Weight 140 lbs. Price \$28.

No. 7. Hand Bone-Cutter designed for flocks of 25 to 100. Weight 107 lbs. Price \$19.75.

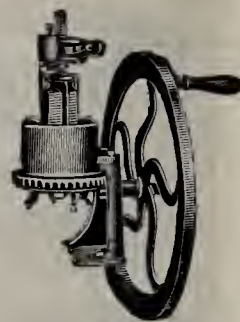
No. 11. Combination Hand and Power Bone-Cutter. Intended for large flocks when the machine must be run by hand a portion of the time. Price \$45.

No. 12. An ideal all-power Bone-Cutter where large quantities of bone are to be cut. Capacity from 120 to 150 pounds per hour. Weight 261 lbs. Price \$65.

Send for complete Catalogue if you wish to know more about them



No. 7½



No. 5-B

Stover Grinding Mill

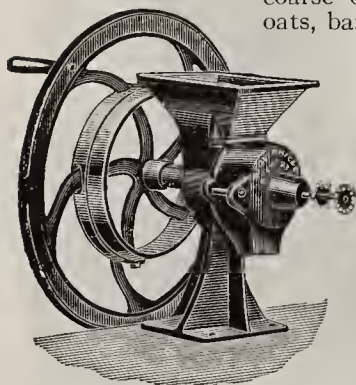
In this Mill are embodied all the good features of other hand grinding Mills to which have been added universal burrs or grinding plates that are adjustable for grinding coarse or fine. This machine grinds

oats, barley, rye, corn, peas, dry bone, shells, etc., for feeding to poultry. It is a well-designed machine, is strong and well made throughout and of excellent finish, has a 16-inch fly wheel and is light running.

No. 32. Hand Power, capacity 1 to 2 bushels per hour. Price \$4.50; postpaid \$5.

No. 35-B. Hand and Power, capacity 2 to 4 bushels per hour. Price \$8.75.

Extra Grinders for No. 32. Price 60 cts., postpaid 65 cts.; No. 35-B, 80 cts., postpaid 85 cts.



No. 35-B. Stover Hand and Power Mill

Black Hawk Grist Mill

Price complete \$3.25, postpaid \$3.65



With a Black Hawk Mill you can crack corn or grind any kind of grain to whatever degree of fineness will best suit the age or condition of your fowls.

Grinds corn into meal, wheat into graham flour, rice or buckwheat into flour; in fact, an all-round household Mill that will grind fine or coarse.

Extra Grinders, per set, 75 cts. ppd.

Harris Poultry Feeder

For Wet or Dry Mash

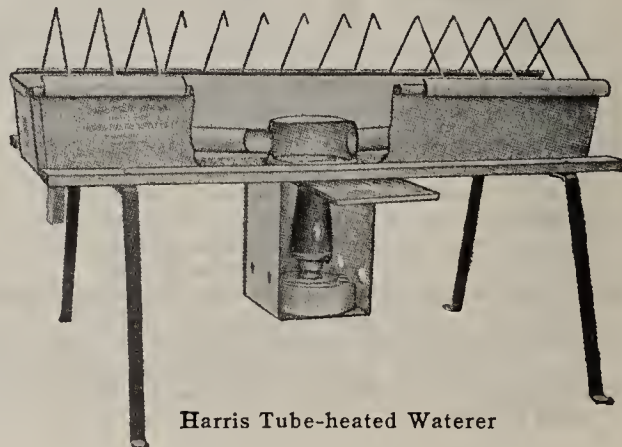
The wire guard keeps fowls out of the trough and saves the feed. Sturdily built of heavy galvanized steel with wooden perches and iron legs. Trough is 9½ inches wide at top and 5 inches deep. Made in two sizes. **No. 1.** (Illustrated.) 7 ft. long with 3 pairs of legs, \$7.30. **No. 2.** 42 in. long with 2 pairs of legs, \$4.50.



Harris Poultry Feeder

Harris Tube-Heated Waterer

A very efficient and economical Waterer for warming water for poultry. Suitable for large or small flocks. Heater-box can be easily removed, adapting the Waterer for use on range in summer. Top guard prevents fowls getting wet and contaminating the water. The tank and fire-box are made of heavy rust-resisting copper-bearing metal. Tank holds nearly 10 gallons of water and is provided with drain for easy cleaning. Length, 42½ inches. Can be furnished with large lamp heater, electric heating element, or burner for natural gas. Fountain, complete with heater (choice of any heater), \$7.50.



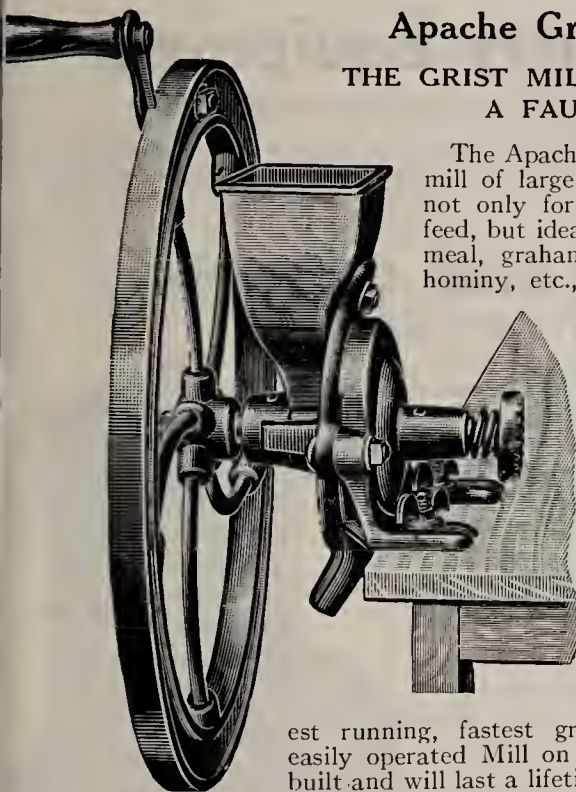
Harris Tube-heated Waterer

Apache Grist Mill

THE GRIST MILL WITHOUT A FAULT

The Apache is an "all-round" mill of large capacity, suitable not only for grinding chicken-feed, but ideal for making corn-meal, graham flour, rye flour, hominy, etc., for table use. It will grind a quart of meal in three minutes. Has perfect adjustment for fine or coarse work.

Some of the special features of this Mill are a large fly-wheel, scientifically balanced, large hopper, ball bearings, adjustable regulator. These features make the Apache the lightest running, fastest grinding, and most easily operated Mill on the market. Well built and will last a lifetime. Price \$7.



Superior Rural Mail-Box

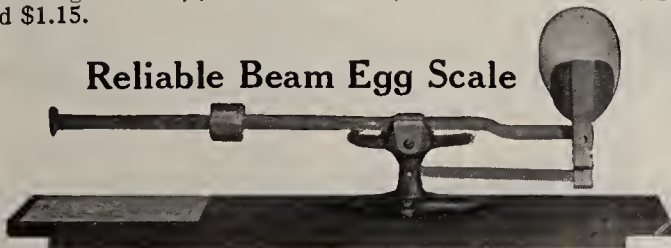
This Mail-Box is of the highest standard of workmanship and excellence of finish. Substantial, and operates perfectly. It is absolutely proof against all weather. Finished in weather-proof aluminum bronze. Made of 18- and 20-gauge galvanized steel, and is 23 $\frac{3}{16}$ inches long, 11 inches wide and 13 $\frac{3}{8}$ inches high. Conforms to the latest postal regulations. \$2.75, postpaid \$3.15.



Superior Suburban Mail Box

Opens at end, hinged at bottom and equipped with automatic steel hasp, keeping door tightly closed and yet easily operated by carrier or patron. Has letter-slot in door. This box cannot be erected or used on rural routes. For use in cities and towns having suburban sidewalk delivery. Size 18 $\frac{1}{2}$ inches long, 7 $\frac{1}{2}$ inches high and 6 $\frac{1}{4}$ inches wide. (Not illustrated.) \$1, postpaid \$1.15.

Reliable Beam Egg Scale



This Egg Scale will give you all grades on the one beam. Simply set counterbalance to the grade wanted, place egg in the holder, and you instantly know if it is up to grade. The holder is so made that the egg is properly positioned to give an accurate weight, and at the same time facilitate handling for rapid testing. Grades all standard grades, 16 to 32 ounces to the dozen eggs. No. 168, \$1.90, postpaid \$2.

Other Egg Scales shown on page 173

Jumbo Power Feed Mill

Here's a Feed Mill that Grinds Ten to Twenty Bushels of Grain an Hour. Grinds the Grain Fine and Grinds it Fast

You can grind oats, rye, barley, shelled corn, wheat, millet, seed, salt, and bark with little power and at practically no cost. Oat hulls can be cut fine. Corn may be cracked or ground fine just as you desire. Simple screw adjustment enables you to grind grain just as fine or as coarse as your needs demand.

Simple as this Feed Mill is, it has a grinding capacity equaled by few. Built of steel and iron throughout, with long and well babbitted bearings. Safety springs protect burrs from nails, nuts, etc., and keep burrs apart when machine is running empty.

One set of fine burrs, also one set of coarse burrs furnished with each machine. Pulley 6-inch diameter by 3 $\frac{1}{2}$ -inch face, gives proper speed for operation with any engine or light plant. Speed 290 to 1,150 R. P. M. Shaft 1 $\frac{1}{8}$ inches cold rolled. Large roomy hopper. Firm, broad base. Burrs 6 inches. Weight 90 pounds. Height 33 inches. Power required 1 $\frac{1}{2}$ to 5 Horse Power. Price \$11.25.



Black Hawk Corn Sheller

Price \$2.75, postpaid \$3.15



The Black Hawk Corn Sheller has enclosed hopper and separator. This prevents scattering of the shelled corn. A wonderfully fast and easy running Sheller. Instantly fastened to barrel or box by two large strong clamps with wing nuts.

OUR POULTRY FEEDS

Our line of poultry feeds includes everything necessary to the successful rearing of poultry—feed for the little chick, the growing fowl and the laying hen.

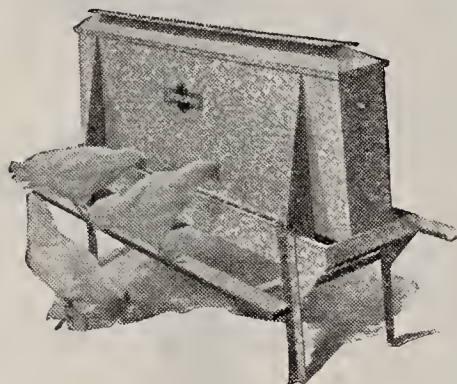
We aim to handle only "the best" and to give our customers "value received for every dollar expended."



Jamesway Poultry Equipment

EQUIPMENT THAT MAKES BIG EGG-YIELDS

Jamesway Poultry Equipment is built for the discriminating buyer who buys equipment not because of the price, but because of the service it will render in increasing egg-yields, in keeping hens healthy and contented, and in making it easier to care for them.



Jamesway Free Feed Cafeteria

FIVE BIG SELF-FEEDERS IN ONE

The only Feeder with a foolproof agitator.

The only "can't clog," "no waste" Feeder on the market.

Holds 50 to 100 pounds of mash, depending on size purchased; also has grit, oyster shell, meat-scrap and charcoal compartments.

Has tilting top to prevent hens from roosting there. Built of heavy, galvanized, rust-resisting, copper-bearing sheet steel. Unquestionably the best mash hopper made.

No. 527. Length 3 ft. Capacity 50 lbs. dry mash. Self feeds 75 to 100 hens for one week with one filling. \$10 75

No. 528. Length 5 ft. Capacity 100 lbs. dry mash. Self feeds 150 to 200 hens for one week with one filling. 15 50

Jamesway 8-Gallon Poultry-Waterer

Provides plenty of fresh, clean water for 100 to 150 hens.

Easiest Waterer to disinfect, clean, and fill.

Built of heavy rust-resisting sheet steel. An aluminum float opens and closes a non-rust brass valve, and keeps the water at the right level in drinking-pan.

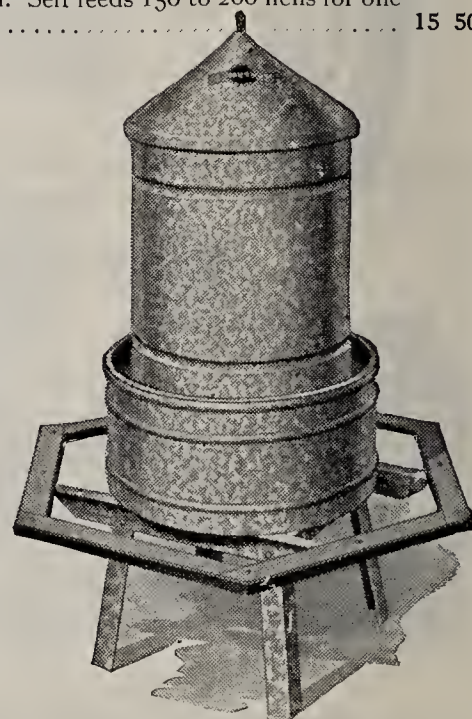
Your hens require water in winter if you want winter eggs.

No. 512. Lamp-heated Waterer, with Kerosene Lamp. \$6 95

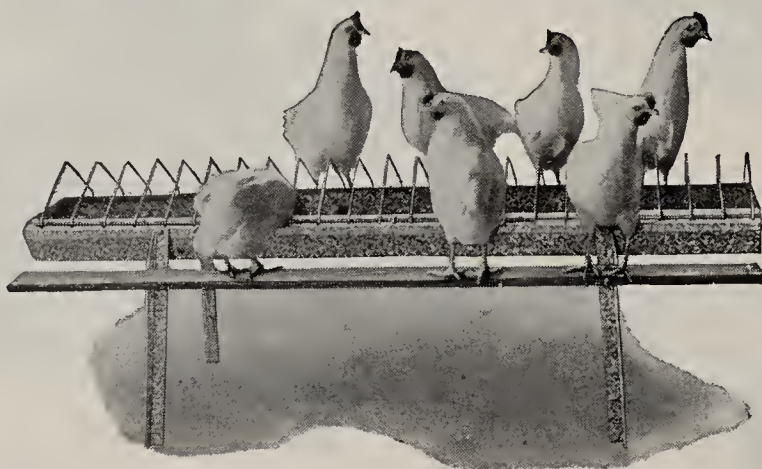
No. 513. Without Lamp. 5 25

No. 514. Electric-bulb heated. 7 75

No. 585. Stand for above Waterer. 1 50



Jamesway Open Mash-Feeder



Big, roomy trough for feeding dry or wet mash and green feeds.

Wire guard prevents hens from getting into trough. Wide lip on trough keeps hens from pulling out mash on floor.

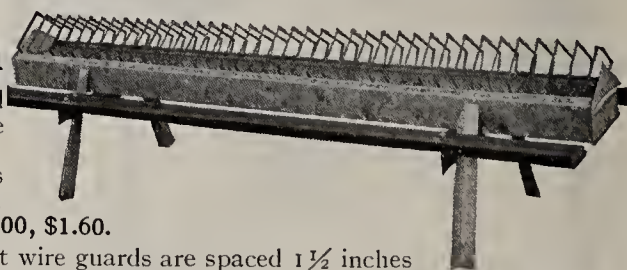
No other trough like it. For feed-saving, cleanliness and real satisfaction, buy this Feeder. Length of trough 5 feet, width 20 inches over perches. Stands 25 inches high on sturdy metal legs; takes up little scratching room from the floor. No. 525, \$4.95. No. 657. Same as No. 525 except trough is 8 feet long. \$6.95.

Jamesway Clean Feed Chick-Trough

Where feed is contaminated with droppings, diseases quickly spread and chicks do not grow evenly. This Clean Feed-Trough keeps chicks out of the feed. Spacing between wire guards can be adjusted from $\frac{7}{8}$ to $1\frac{3}{4}$ inches.

This Trough is useful for feeding not only young chicks but older ones as well. Two Troughs provide feeding-space for a brood of 250 to 350 chicks. Made of galvanized heavy sheet steel 44 inches long—6 $\frac{1}{2}$ inches wide. No. 600, \$1.60.

JAMESWAY GROWING FLOCK FEEDER. Same design as No. 600, except wire guards are spaced $1\frac{1}{2}$ inches apart and are not adjustable. It also is larger, holds 50 pounds of dry mash, and is 60 inches long. No. 500, \$1.90. Stand can be furnished for either of above Feeders to raise them off floor. Extra, if wanted, \$1.40.



Shows Feeder with stand

Jamesway Chick-Waterer

Poultry experts say this is the most satisfactory Chick-Waterer ever built. Made of heavy, galvanized, rust-resisting sheet steel. Keeps a constant supply of clean, fresh water available for the chicks. Only two parts to clean—the inverted bucket and pan. Won't tip over. Holds 1½ gallons and weighs 4½ pounds. Compare it with any other. Weight means long service. Thousands in use, and every one is giving real satisfaction. No. 507, \$1; postpaid \$1.15.



No. 507 Chick-Waterer

Jamesway 3-Gallon Gravity Waterer

A safe fountain for large broods of chicks. Sloping pan-edge prevents chicks from getting wet. Depth of water controlled by aluminum float concealed under tank. Float may be locked, which shuts off water. Tank can then be carried about without leaking. Unusually rugged construction. Conical cover prevents chicks from roosting there. Pan-edge raised high to keep out dirt. Holds 3 gallons. Enough for one colony brood for a whole day. A labor-saver that keeps chicks from getting soaked and chilled. No other Waterer with all these desirable features. No. 353, \$1.75.

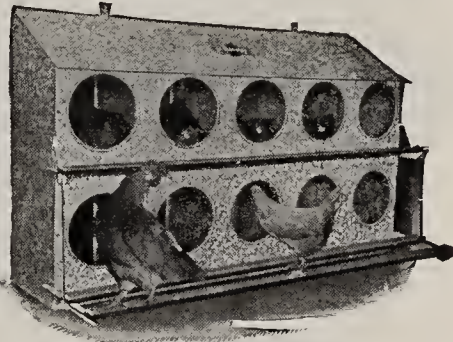


No. 353 Waterer

Jamesway All-Metal Nests

LICE- AND MITE-PROOF

Put Jamesway All-Metal Nests in your poultry-house and watch your hens side-step the old mite-infested wood boxes. The hard, smooth, sanitary, galvanized surface of Jamesway Metal Nests offers no place for parasites to hide and thrive. Jamesway All-Metal Nests are clean, sanitary, lice- and mite-proof, and easily cleaned. Simply swing them forward and upward. The back of the nest is open. Straw and shavings fall out, and the nest is cleaned. Swinging the perches up against the face of the nest prevents hens from roosting in the nest or on the perches. Raising the bottom perch automatically raises the upper one, an exclusive Jamesway feature.



Jamesway All-Metal Nests

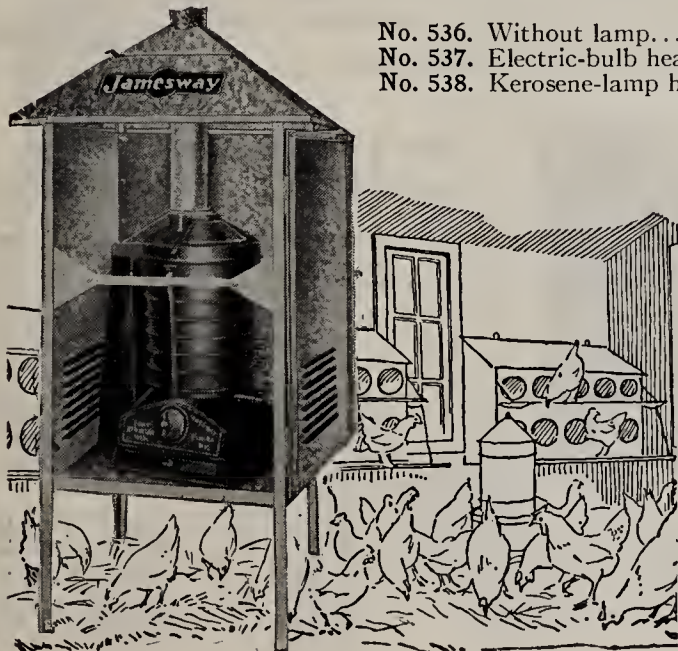
No. 823.	3-Nest Unit (1 tier, 3 ft. long)	\$4 75	No. 630.	10-Nest Unit (2 tiers, 5 ft. long)	\$9 75
No. 626.	6-Nest Unit (2 tiers, 3 ft. long)	6 50	No. 635.	15-Nest Unit (3 tiers, 5 ft. long)	13 95
No. 859.	9-Nest Unit (3 tiers, 3 ft. long)	8 95	No. 831.	Trap Attachment, extra, each 40 cts., doz.	4 55

Jamesway Pressure Waterer

Poultrymen who have running water in their poultry-houses will find this Automatic Pressure Waterer a great labor-saver. Built large enough for 150 to 200 hens. Can't overflow. Copper float and brass valve keep the water at right level. Can be adjusted to any water pressure. Wire guards keep the hens out of water. Guards tilt back for cleaning. Sets up off the floor on sturdy metal legs. The rust-resisting copper-bearing steel trough is 2 inches deep and 5 inches wide. It sets in a galvanized sheet steel base, and is 30 inches high to top of guards. Can be furnished with a kerosene lamp or electric socket for the warming of water in winter.



	3 ft. long
No. 536.	Without lamp.....\$6 90
No. 537.	Electric-bulb heated..... 8 75
No. 538.	Kerosene-lamp heated..... 7 90



Jamesway Temperlator

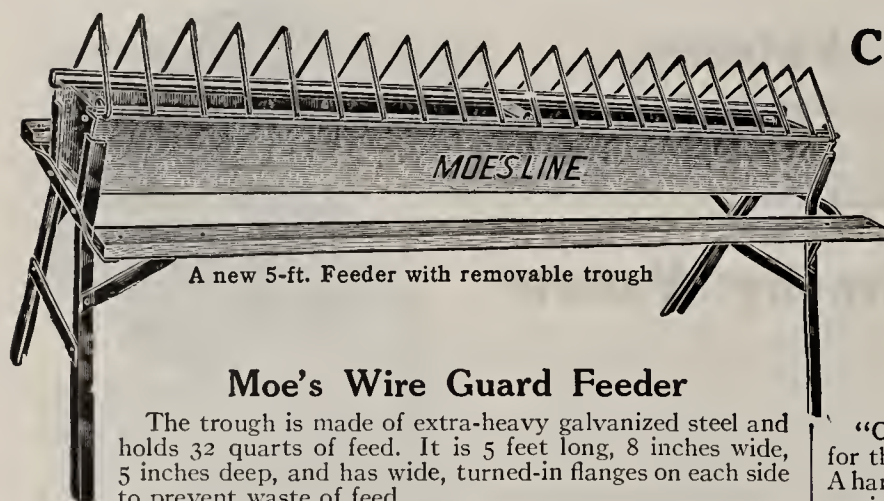
“When Winter Comes”—Make Your Hens Lay and Pay!

This is a comparatively new, but ever so popular addition to the Jamesway line. It is popular because it is of dual purpose: it can be used as a poultry-house heater in the winter and as a brooder stove during baby-chick season.

The Temperlator is an all-metal cabinet into which is placed a regular No. 660 Jamesway Brooder Stove. The cabinet is 24 inches square, about 5 feet high, and stands 13 inches from the floor, on angle-iron legs. Close to the bottom are slotted openings through which the cool air is drawn and warmed before being circulated through the poultry-house. The thermostat on the stove regulates the heat. It works wonders in preventing egg-slumps during cold weather.

To use as a brooder stove in the spring, remove the stove from the cabinet and slip on a Jamesway Hover. This gives you just twice as much service out of your brooder stove as ordinarily.

No. 661.	Temperlator Cabinet, without Stove.....	\$14 85
No. 662.	Temperlator Cabinet, with No. 660 Stove, less Hover.	32 35
No. 663.	Temperlator Cabinet, with No. 660 Stove and Hover..	38 35



A new 5-ft. Feeder with removable trough

Moe's Wire Guard Feeder

The trough is made of extra-heavy galvanized steel and holds 32 quarts of feed. It is 5 feet long, 8 inches wide, 5 inches deep, and has wide, turned-in flanges on each side to prevent waste of feed.

Wire guards are of heavy galvanized wire. Hinged in one unit, so the entire guard can be thrown back for filling and cleaning.

The trough rests securely on the stand and can be easily lifted off to dump and clean it, which is a highly desirable feature.

The stand has strong angle-iron legs, well braced, complete with stout wooden perches.

Total height on stand, 27 inches. Height of perches 17 inches.

No. 355. Complete with Stand and Wire Guards. \$4 50

No. 356. Trough only, with Wire Guards (no Stand). 2 50

Moe's Peerless Feeders



Intended for chicks and growing fowl. Made of heavy galvanized iron. Suited for either large or small flocks. The magazine or hopper is adjustable up or down for different kinds of mash and feed and can be set to feed slowly or rapidly.

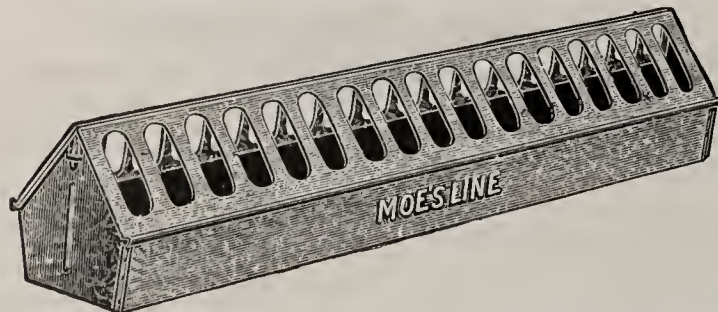
Has a removable cover, so it is easy to fill, and the bottom is cone-shaped so the contents will not clog.

The vertical feeder-holes make it impossible for the chicks to foul or waste the feed. Thirty chicks can feed at one time. Made in two sizes.

No. 192. Diameter of base 12 in. Diameter of magazine 9½ in. Total height 12 in. Capacity 10 qts. \$1, postpaid \$1.15.

No. 193. Diameter of base 12 in. Diameter of magazine 9½ in. Total height 18 in. Capacity 18 qts. \$1.25, postpaid \$1.45.

Moe's Intermediate Feeder

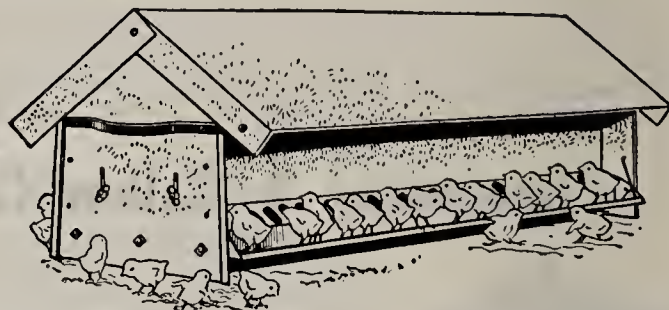


This Feeder is intended for growing fowl and full-grown birds. Made of galvanized steel, with slotted hinged cover. Easy to fill and clean. The feeder-holes are exactly the right size and shape to give easy access to the feed and prevent waste.

Length of Feeder 32 inches, width 8 inches, depth of pan 3½ inches, total height 7 inches. Capacity 12 quarts. Has a total of 34 feeder-holes, 17 on each side.

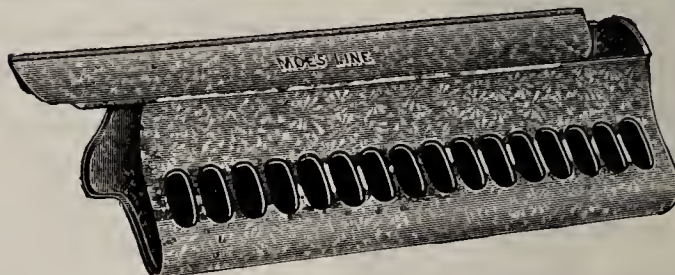
No. 154, \$1, postpaid \$1.15

Cyclone Adjustable Outdoor Feeder



"One feeder does the work of three." It is just as practical for the growing flock and matured fowls as for the baby chicks. A handy quick adjustment makes this possible. Made of heavy galvanized iron; adjustable steel legs. Feeds from both sides—has 5 feet of feeding-space. Holds more than a bushel. No. 35, \$3.95.

Moe's Large Capacity Feeder



A satisfactory Feeder for pigeons and young growing stock. The birds cannot roost on the cover or sides. Made of heavy galvanized iron.

Shipped completely assembled, ready for use.

No. 140. 21 in. long; 8½ in. wide; 7 in. high. Capacity 10 qts. 16 openings on each side.	\$0 75	Post-paid \$0 90
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No. 141. 35 in. long; 8½ in. wide; 7 in. high. Capacity 17 qts. 27 openings on each side.	1 25	1 45
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No. 141T. Same as No. 141, except has tilting or swinging top so that chickens cannot perch on it.	1 50	1 70
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No. 146. Extra Hopper to fit on top of No. 140 Feeder. 21 in. long; 4 in. wide; 4 in. high. Capacity of Hopper, 5 quarts.	25	35
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No. 148. Extra Hopper to fit on top of No. 141 Feeder. 34½ in. long; 4 in. wide; 4 in. high. Capacity of Hopper, 9 quarts.	40	50
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Extra Hoppers are not illustrated.

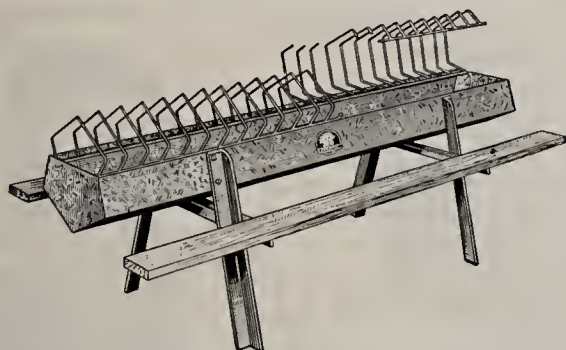
Moe's Dry-Mash Hopper



The curved bottom of the Hopper keeps the feed within easy reach of the birds. The gradual enlargement from the top to base prevents clogging. The wire grid and the wires running from the flange through the wire grid prevent any chance of the fowls throwing out or wasting the feed. The sloping cover prevents the birds from roosting on the Hopper, and when both covers are closed, it is rat- and mouse-proof. A trial will convince you that it is a Hopper of the greatest merit. Manufactured of heavy galvanized iron in four sizes.

	Width	Capacity	Each	Postpaid
No. 35.	8½ in.	10 qts.	\$1 00	\$1 20
No. 36.	12 in.	14 qts.	1 50	1 70
No. 13.	18 in.	22 qts.	1 75	2 00
No. 37.	24 in.	32 qts.	2 00	2 25

MaKomb Long Boy Feeder



An ideal large-flock Feeder. It is substantially built and will give years of service. The trough, made of heavy galvanized steel, is 10¼ inches wide and 5¼ inches deep and has "V" center so mash will be eaten down to the last billful. The grid guard is of special design and is made of heavy wire. Stand is made of heavy angles and perches are comfortably wide. Length 5 feet; height 26 inches; total width 24 inches. No. H4-105. \$4.20.



"Cyclone" Dependable Chick-Feeder

A FEEDER IN A CLASS BY ITSELF

The Cyclone Dependable Feeder is true to its name, dependable, and is built for service, having entirely new and valuable working features. It will accommodate the chicks from the very start.

The cover is hinged and provided with no roost contrivance. Filling is easy with the Dependable. No more space is required for filling than that taken up by Feeder.

The feed-grates are formed into feed-saving trays and are easily removed. All openings have smooth, turned edges. Has adjustable feed-saving guards.

Made of galvanized iron, and fastened together with rivets.

	Capacity	Length	Price	Postpaid
No. 220.	8 qts.	20 inches.....	\$0 90	\$1 05
No. 230.	12 qts.	30 inches.....	1 35	1 55
No. 240.	16 qts.	40 inches.....	1 75	2 00



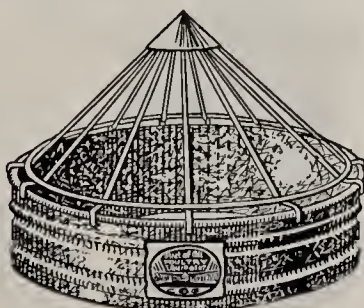
Nu-Way Feeder and Fountain

The modern sanitary way of supplying grown fowls, turkeys, and pigeons with water, buttermilk, wet mash, and feeds of every kind without waste. The pan or vessel is made of stoneware and the canopy of heavy galvanized iron. The wires are No. 11 gauge galvanized wire, every joint electrically welded.

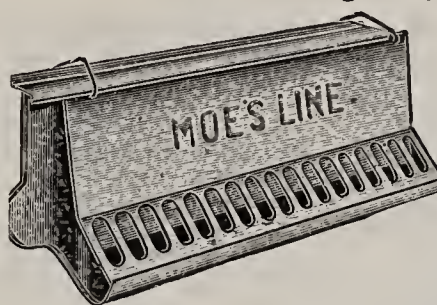
	Diam.	Height	Capacity	Feeding spaces	Each	Postpaid
No. 1.	12 in.	13 in.	6 qts.	17.....	\$1 25	\$1 45
No. 3.	16 in.	16 in.	13 qts.	23.....	1 90	2 15

Simplicity Feeder and Waterer

Low in price. Can be used as a Feeder or Waterer. Has galvanized pan 15 inches in diameter by 4¼ inches deep. Equipped with galvanized wire guard, easily detached. Capacity 10 quarts. No. W5. \$1, postpaid \$1.15.



Moe's Big Boy Feeder



Especially designed for growing stock—three- to four-week-old chicks—and up to full-grown, mature fowls. Has a large capacity, with wide, good-sized feeder openings. Makes an excellent feeder for turkeys. The feeder-holes are exactly the right shape and size to prevent waste, and yet give easy access

to a generous supply at all times. Has a capacity of about 75 pounds or 65 quarts of dry mash, with 17 openings on each side or a total of 34 openings. Can be placed on the ground or on a low stand or suspended by the two wire handles.

No. 160. Length 33 in., width 16½ in., height 14 in. \$2 50

No. 161. Same Feeder, with Adjustable Rain-Cover. 3 00



Moe's Eclipse Feeding-Troughs

A new popular-priced Feeding-Trough, made of galvanized iron and intended for chicks and growing stock. The pan and top are both stamped in one piece, no seams, rivets or solder used. Sliding top makes them easy to fill and keep clean. Made in two sizes.

	Length	Each	Postpaid	Doz.	Postpaid
No. 27.	10 inches.....	\$0 15	\$0 25	\$1 60	\$1 80
No. 28.	20 inches.....	25	35	2 70	2 95

Moe's Round Baby-Chick Feeder



Popular and practical Feeder for baby chicks. Made of best-quality, tight-coated galvanized steel, accurately formed with dies, with smooth, round feeder-holes. The top fits snugly on the pan, but can be easily lifted off for cleaning and filling.

The holes are just the right size to make feeding easy, but the chicks cannot get inside and

contaminate the grain. The bottom pans are raised in the center so all the feed is accessible. Can also be used for water. Made in two sizes.

	Each	Postpaid	Doz.	Postpaid
No. 11.	8 feeder-holes.....	\$0 10	\$0 20	\$1 05
No. 12.	12 feeder-holes.....	15	25	1 60
No. 12.	Porcelain Enamelled...	25	35	1 80

Stand 1¾ in. high, to raise feeder out of litter, 5 cts. extra.

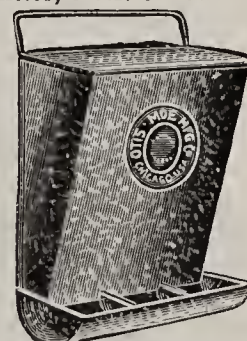
Moe's Grit and Shell Box

The feeding of grit, ground shells, and charcoal is recognized as an essential part of the diet, to keep fowls in healthy, prime condition. There is no more economical method of supplying grit, etc., than with these practical, inexpensive compartment boxes.

Can also be used as feed-hoppers for little chicks.

Made of heavy galvanized iron in three sizes. The No. 45 for baby chicks has a square bottom; the other sizes have round bottoms. No solder used in their construction.

	Compartments	Width	Each	Postpaid
No. 45.	2	5 in.....	\$0 35	\$0 45
No. 9.	3	8½ in.....	65	80
No. 90.	4	11 in.....	90	1 05



Moe's Gem Chick Fountains



A good, inexpensive Fountain for chicks or grown fowl. Made of galvanized steel, accurately stamped and formed. Easy to fill and clean. The fluted pan is shaped to care for up to 18 chicks at a time without crowding or danger of getting the chicks wet. Diameter of pan, 10 inches. Has a substantial top handle for carrying, and may be placed on the floor or hung from the ceiling up out of the litter as desired.

	Capacity	Each	Postpaid
No. 158.	1 gal.	\$0 50	\$0 60
No. 159.	2 gals.	70	85

Either fountain with removable cone-top, 10 cts. extra.

Kline Glass Jar Fountain



Pan made of heavy, clear glass. The jar-holder is made of steel and snaps onto the pan. Easy to fill and clean. Will fit any Mason jar. (Jar not furnished.) Can be used for buttermilk or medicines as well as water.

No. 10. 15 cts. each, postpaid 20 cts.; doz. \$1.65, postpaid \$1.85.

Moe's Improved Double Chick-Feeders

Sliding top



Easy to fill and clean

An excellent trough for feeding chicks. Made of best-quality galvanized steel, accurately stamped and formed with dies. Width of pan, 4 inches; depth at outer edge, 1 inch; total height, 3 inches.

	Length	Feeder-holes	Each	Postpaid	Doz.	Postpaid
No. 58.	12 in.	18.	\$0 25	\$0 35	\$2 70	\$2 95
No. 59.	18 in.	26.	30	40	3 25	3 55
No. 60.	24 in.	36.	35	45	3 80	4 15
No. 76.	36 in.	54.	50	65	5 40	5 85

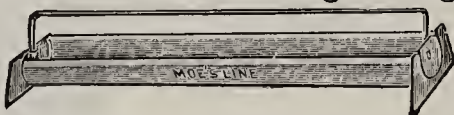


MaKomb All-Age Feeder-Waterer

A large-capacity Feeder that can be used from the day-old to the broiler stage. As the chicks grow, the Feeder can be elevated by means of the adjustable legs. Ends are securely welded, then soldered. The reel prevents chicks from roosting on the Feeder and has 2 adjustments. Trough is 4 feet long, 4 3/8 inches wide, and 2 1/4 inches deep.

No. 548. 75 cts., postpaid 90 cts.

Moe's Dixie Feeding-Troughs



Made of best-quality galvanized steel. The round Troughs are easily filled and cleaned, and have a turned-in flange to prevent waste of feed. Fitted with a heavy wire top guard to keep the chicks out of the feeder, and this guard is adjustable so it can be raised as the chicks grow.

	Each	Postpaid	Doz.	Postpaid
No. 460. 18 inches long	\$0 20	\$0 30	\$2 15	\$2 35
No. 462. 30 inches long	30	40	3 25	3 50

The Star Jar Fountain and Feeder

Will fit pint, quart, or one-half gallon Mason jar

Manufactured of one piece of non-rusting metal. No parts to come unsoldered. Leaking impossible. Convenient, cheap, and sanitary. Provides greater drinking surface than the round fountain. Can be used for feed as well as water.

Price, without Jars, 10 cts. each, postpaid 15 cts.; doz. \$1, postpaid \$1.20.

Stand 1 3/4 in. high, to raise fountain out of litter, 5 cts. extra.



Moe's Mason Jar Fountain

Made of heavy terne plate, a rust-resisting metal, and the finest Fountain of its kind on the market. No solder used in its construction. Can be used for feed as well as water. Little chicks cannot drown. Will fit pint, quart, or 2-quart Mason jar. (Glass jars not furnished.) Diameter 6 inches.

No. 142. 10 cts. each, postpaid 15 cts.; doz. \$1, postpaid \$1.10.

Stand 1 3/4 in. high, to raise fountain out of litter, 5 cts. extra

Stoneware Chick Fountain

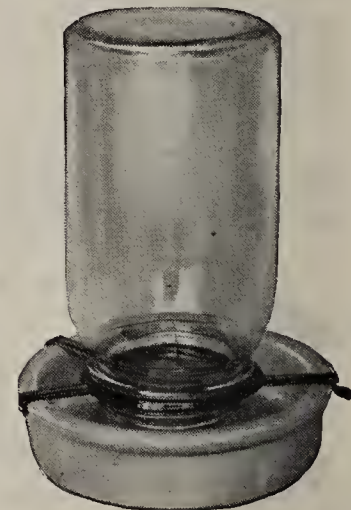
To be used with any make of fruit jar

A PERFECT FEEDER

For sour milk, water, hard grain or grit

Can be used for feeding buttermilk or medicines without fear of any chemical reaction. The one-piece bracket holds the jar firmly. Fits any Mason jar.

No. 9. Pan and Bracket only. 15 cts. each, postpaid 20 cts.; doz. \$1.60, postpaid \$1.80.



MaKomb 10-Qt. Chick-Fount



A top-fill Fountain of most practical design. It provides for baby chicks a dependable supply of clean water. It has every advantage and most convenient to take care of. Built of heavy-gauge galvanized steel. The removable non-roosting cone top comes off for easy filling. Handle provides for easy handling. Float can be locked to prevent flow.

No. 1. 10-qt. \$1.65, postpaid \$1.80; 1/2 doz. \$8.90.

Moe's Automatic Fountain

A perfect automatic valve and float, to regulate the flow of water to a drinking-dish.

The valve is threaded for 1/4-inch iron pipe and can be attached to any iron water pipe, or to a barrel or tank, and insures a continuous, automatic supply of water, without waste.

No. 30. Automatic Valve and Float only. \$1, postpaid \$1.10; doz. \$10.75, postpaid \$10.95.

No. 31A. Automatic Valve and Pan complete, as illustrated, \$1.50, postpaid \$1.65; doz. \$16, postpaid \$16.40.



Moe's Bottom-Fill Fountain

The chicks cannot get into the basin to foul the water nor to drown, and will not roost on the top. They are easily cleaned, light and durable. The round taper shape prevents bursting from freezing.

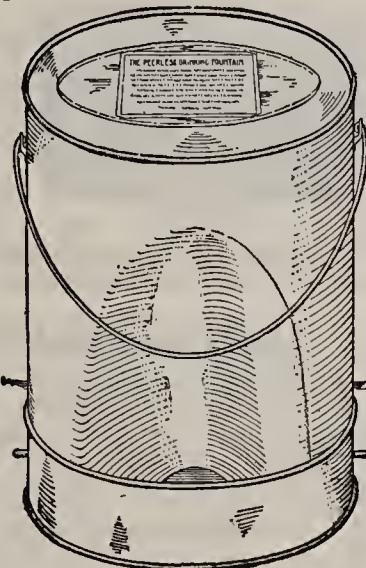


	Each	Postpaid
No. 19. 1-qt.....	\$0 25	\$0 35
No. 20. 2-qt.....	30	40
No. 24. 1-gal.....	40	55

The Peerless Sanitary Drinking Fountain

Patented January 18, 1910

The water is always pure, as it is protected from dirt and filth. The fowls cannot injure their combs when drinking; easy to clean and fill; simple in construction; durable and practical. It is adjustable; the top and bottom can always be made to fit. Should it work too loose, take the Fountain apart and pull sides out; if too tight, press sides in. Made of heavy galvanized iron.



	Each	Postpaid
No. 206. 5-qt....	\$0 90	\$1 05
No. 208. 10-qt....	1 25	1 50

Stoneware Fountains and Feeders



Sanitary Milk Feeder

Be sure to specify which is wanted, Fountains or Feeders. By freight or express only.



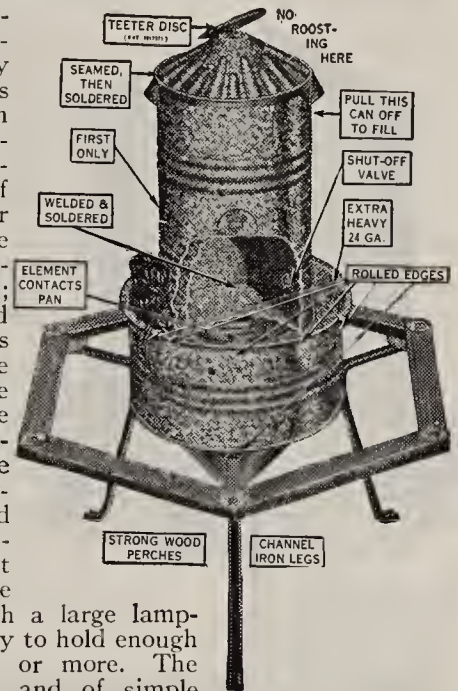
Two-piece Fountain

Made of best grade stoneware, highly glazed inside and out. Sanitary and easy to keep clean.

PRICES for Fountains or Feeders:	Each	Doz.
1/4-gallon.....	\$0 40	\$4 30
1/2-gallon.....	45	4 85
1-gallon.....	55	5 95
2-gallon.....	1 00	10 75

MaKomb Fountains

Here is a line of Fountains of quality construction and large capacity priced to interest today's careful buyer. Made in two styles—vacuum-controlled and float-controlled. A simple valve of spring brass and rubber controls the water in the drinking-pan in the vacuum-controlled Fountain; in the float-controlled Fountain the float is mounted underneath the Fountain body, out of the way. These Fountains are built with the drinking-pan separate from the body. A loose drinking-pan is easier to clean, and the Fountain proper handles much better without a protruding pan. The Heater is furnished with a large lamp-bowl of sufficient capacity to hold enough oil to burn two weeks or more. The Stand is sturdily built and of simple design. Stand height, 14 inches.



Vacuum-controlled Fountain

	Each	Postpaid
No. 195. 5-gal. Fountain, without Heater.....	\$2 10	\$2 30
No. 196. 5-gal. Fountain, with Lamp Heater.....	3 75	4 05

Float-controlled Fountain

No. 105. 5-gal. Fountain, without Heater.....	2 40	2 60
No. 65. 5-gal. Fountain, with Lamp Heater.....	4 20	4 50
No. 13. Stand for any of above Fountains, as shown in illustration.....	1 40	1 60

Top-Fill Chick Fountain

No. 23. 3-gal. Vacuum-controlled Fountain only..	1 65	1 85
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Duplex Fountain

An ideal Fountain for pigeons. Practical; sanitary. A double-wall fount, keeping the water clean and pure. Easy to fill. Easy to care for.

	Each	Postpaid
No. 210. 1-gal.....	\$1 15	\$1 30
No. 212. 2-gal.....	1 40	1 65

Twin Duplex Fountain

Constructed with two water-fronts which doubles the drinking capacity.

	Each	Postpaid
No. 214. 2-gal.....	\$1 65	\$1 90
No. 216. 5-gal.....	3 00	

Two-Pen Duplex Fountain

Made with two water-fronts. Similar to Twin Duplex Fountain

except water-fronts are opposite each other. (Not illustrated.) Same price as Twin Duplex Fountain.



Moe's Top-Fill Fountain with Round Pans



Fills from the top. Made of heavy galvanized steel, with double walls, which keeps the water cool in summer and retards freezing in winter. Feeds automatically; no valves to get out of order. Thoroughly sanitary and as easily cleaned as an ordinary pail. The outside cover has a heavy wire bail, so it can be used to carry water when filling the inside tank.

The side clips hold the pan securely in place when the Fountain is lifted or carried about by the top handle. Diameter of pans 13 inches.

Has removable cone top which positively prevents roosting on top of the fountain.

No. 33. 2-gal.	Each	Postpaid
No. 34. 4-gal.	\$1 90	\$2 10
	2 25	2 45

Moe's Top-Fill Fountain with Square Pans

Made similar to the Top-Fill Fountain described above, except it has square drinking-pans which gives drinking facilities for two pens at the same time.

No. 1. 1-gal.	Each	Postpaid
No. 2. 2-gal.	\$1 25	\$1 40
No. 4. 4-gal.	1 75	1 95
	2 20	2 40

Moe's Top-Fill Heated Fountain

A very practical lamp-heated Fountain. The outfit consists of either the No. 33 Moe's 2-gallon Fountain or the No. 34 Moe's 4-gallon Fountain described above and the No. 10 Moe's Fountain Heater described on this page.

No. 417. 2-gal.	Each	Postpaid
No. 418. 4-gal.	\$3 70	\$3 95
	4 15	4 35

Leader Fountains



Pat. applied for

No. 200. 1 1/2-gal. size,
85 cts.; postpaid \$1



Pat. applied for

No. 202. 3-gal. size,
\$1.50; postpaid \$1.70

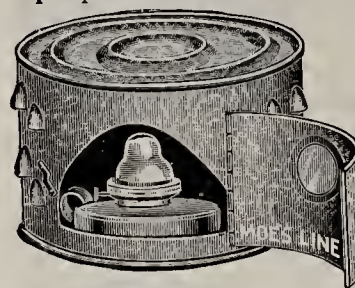
A new sanitary Fountain, practical to use, easy to keep clean. A saving of from 30 to 40 per cent over any Fountain of its size. The 3-gallon size has two drinking-spaces, making it very convenient for a large pen of fowls. These founts hang on the wall with two nails, one at each angle of the bail.

Moe's Feed and Water Cups

A practical and convenient Cup made to hang on the side of exhibition coops. Capacity about 1/2 pint.

Length, 4 1/2 inches; width, 3 inches; depth, 2 inches.

No. 61. 10 cts. each, postpaid 15 cts.; doz. \$1.10, postpaid \$1.35.



Moe's Fountain Heater

Can be used with all styles of fountains, and effectively prevents water from freezing.

Effectively solves the problem of a uniform supply of fresh, clear water at all times, no matter how cold the weather.

It is also an excellent Heater for small brooder.

The lamp-fount or bowl holds sufficient kerosene to burn continuously for seven days. Height 7 inches; diam. 11 inches.

No. 10. \$1.50, postpaid \$1.60



Little Putnam Stove

The Little Putnam Stove is used under the drinking vessel in the poultry-house to keep the water from freezing during the winter months. It is 8 inches in diameter and 4 inches high and is made of galvanized iron and

equipped with burner. The oil tank holds three pints of oil and burns three to four weeks without refilling or any other attention. The wick never needs trimming. \$2 postpaid.

Moe's Insulated Cleanable Fountain

Made of heavy galvanized steel, substantial and durable, and is an excellent Fountain for winter and summer use in any climate. The bottom pan, side walls, and top are all made with double walls filled with insulation. Top section telescopes snugly over the water-container. The Fountain is as easy to fill and clean as an ordinary pail. No valves, springs, or complicated parts, and nothing to get out of order.

Has a large, round pan, giving a large drinking-surface, so one Fountain will care for a good-sized flock.

No. 54. Capacity 4 gal. Diam. of pan 14 in. Total height 17 1/2 in. \$4, postpaid \$4.30.



Felker's Insulated Duplex Fountain

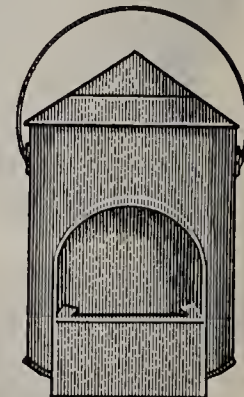
Top Section Slides into Bottom Section

Its construction makes it as handy to clean as a common pail. The top or inside container slides into the bottom section or base, and can be removed without inconvenience at a moment's notice. The water is kept pure and clear at all times.

The extra-large opening, or drinking-trough, makes this Fountain easy of access to a number of fowls at the same time.

An entirely new and improved method of insulation enables it to keep water at an even temperature the coldest day of winter and the hottest day of summer. It will not freeze.

No. 230. 3-gal.	Each	Postpaid
No. 232. 4-gal.	\$4 50	\$4 85
	5 00	5 40



Rabbit Supplies

For many years we have catered to the rabbit breeder and fancier in a small way. With the increasing interest in the rabbit industry, we have enlarged our line and are now prepared to supply every requirement to those raising rabbits. It has been our aim to make our line complete and to supply only those necessities which the experience of our customers and ourselves has shown to be practical and most profitable. It will be a pleasure to serve you.



6-Pen Outdoor Hutch

6-Pen Outdoor Hutch, Complete.....	\$24 75
6-Pen Additional Units (without one end).....	23 50
6-Pen Indoor Hutch, Complete.....	22 00
4-Pen Outdoor Hutch, Complete.....	18 25

Root Ready-Built Rabbit Hutches

The Root Hutch answers the need for proper housing of rabbits. It is low in price and modern in design. Rabbits are healthy in the Root Hutch because there are no drafts and it is easily kept clean and sanitary. This Hutch saves feed and requires very little work because it is self-cleaning. Root Hutches are made of western fir and white pine. All hardware good quality. Built strong and sturdy throughout. All Hutches are 8 feet long and 28½ inches wide. The 6-pen Hutch is 6 feet high, the 4-pen Hutch, 5½ feet high, and the 2-pen Hutch, 52 inches high. They are equipped with the latest type self-cleaning floors. All floors are solid and tight. They slope to the rear. You have your choice of the solid wood self-cleaning floor or the part wire and wood. State the kind desired when ordering.

2-Pen Outdoor Hutch, Complete.....	\$10 50
Developing Pen with Nest-Box and Platform.....	7 75
Standard Nest-Box.....	95
Complete Catalogue on request. Prices f.o.b. Factory.	

Stoneware Feeders and Waterers

Made with heavy rolled edge to prevent waste of feed. White glazed.

No. 031. 2½-in. deep x 7¼-in. diam., 20c. ea., \$2 per doz.

No. 041. 2½-in. deep x 5½-in. diam., 15 cts. each, \$1.65 per doz.

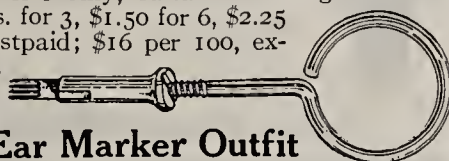
No. 051. 2½-in. deep x 6-in. diam. at top x 7½-in. diam. at bottom, 20 cts. each, \$2 per doz.

No. 021. 3½-in. deep x 6-in. diam., 20 cts. each, \$2 per doz.



Ex-Cel-So Fur Stretcher

In order to dry, stretch, and properly prepare the hides for tanning it is necessary to have a Fur Stretcher. The Ex-Cel-So is made of heavy spring steel in one size only, suitable for large or small hides. 90 cts. for 3, \$1.50 for 6, \$2.25 per doz., postpaid; \$16 per 100, express collect.

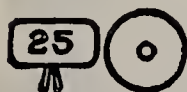


Ex-Cel-So Ear Marker Outfit

A reliable, adjustable, tattoo Ear Marker. Positive and quick identity of every rabbit. The Marker is adjustable, suitable for making any figures or letters. Marker complete with ink and directions how to use \$1, postpaid \$1.10.

Ex-Cel-So Aluminum Ear Tags

Another means of identifying the individual rabbit or other small animal, used in place of the ink-marker. A hole is punched into the ear of the animal, the Tag is then inserted, clasped onto a washer and all is done. Numbered from 1 to 200. 25 cts. for 12, 50 cts. for 25, 75 cts. for 50, \$1.35 per 100, postpaid. Ear Punch, 25 cts.



Hardware Cloth

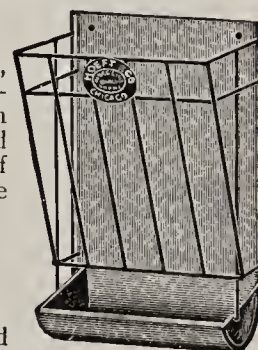
⅝ x ⅝-in. mesh, No. 16 gauge wire, galvanized after weaving. 30-in. width. Used for hutch floors. 100 lineal foot roll \$18, 25 lineal foot roll \$4.75; smaller quantities, 22 cts. per lineal foot.

Rabbit Books

Making a Living with Rabbits. 96 pages. 50 cts.
Principles of Fur Farming. 160 pages. Cloth, \$1.50.
Care and Management of Rabbits. By Chesla C. Sherlock. \$1.25.
American Rabbit Culture. By A. E. Facey, Jr. \$1.
Pedigree Book. 50 blanks bound in book form. 35 cts.
Pedigree Blanks. 25 blanks 30 cts.; 50 blanks 50 cts.

Moe's Rabbit Feed Rack

For holding roots or hay, alfalfa, clover, etc. It prevents scattering hay and wasting. The round trough at the bottom catches the small tender leaves. Feed saved soon pays for the Rack. Made of galvanized steel with galvanized wire rack. Height 13 in., width 8½ in.
 No. 44, 65 cts., postpaid 80 cts.



Rabbit Feeds

Domino Rabbit Pellets. A complete and balanced food ready to feed. Each ingredient is carefully selected to perform a necessary task and meet a genuine need.

Pratt's Rabbit Feed. Perfectly balanced, highly appetizing, complete feed, containing 16 ingredients. Furnished in both mash form and pellet form.

Conkey's Balanced Rabbit Feed with Y-O. A scientifically balanced feed containing 12½ per cent protein with enough animal food to support rapid bone and muscle development.

Alfalfa Hay. Fed in racks and kept before the stock at all times. The Hay we offer is green, well cured, and in perfect condition for feeding.

For prices of above, see our Poultry Feed Price-List accompanying this Catalogue

Ex-Cel-So Rabbit Remedies

Ear Canker Remedy. Eliminates ear-trouble speedily. 50 cts., postpaid 55 cts.

Cold and Pneumonia Remedy. Be prepared and keep a bottle on hand. 60 cts. and \$1, postpaid 65 cts. and \$1.10.

Pot Belly Remedy. For young stock that sometimes overeat. 50 cts., postpaid 55 cts.

Eye Drops. For treating weak and sore eyes. 50c., postpaid 55c.

Slobber Remedy. A treatment for indigestion. 50 cts., postpaid 55 cts.

Health Tonic. A preparation for all kinds of disorders in rabbits. 50 cts., postpaid 55 cts.

Tonic and Regulator. Makes small animals grow. It builds bone and muscle. 1½-lb. pkg. \$1., postpaid \$1.10; 5-lb. pkg. \$3.50, postpaid \$3.65.

Breeding Tablets. For does that are hard to breed. 50 cts., postpaid 55 cts.

Diarrhoea Remedy. In tablet form. 50 cts., postpaid 55 cts.

Salt Spools. Keep your stock healthy and in good condition by keeping Salt Spools always before them. Prevents common disorders and disease. Two kinds: pure salt and salt with sulphur added. Either kind, 5 cts. each, 50 cts. per doz., postpaid 70 cts.; 100 for \$3.50, express collect.

Improved "Surety Cushion" Wooden Egg-Cases



Patented

Light, yet strong, they are sure to carry safely, regardless of the distance. Easier and quicker to pack than the ordinary returnable cases. Will stand up under the most severe tests and pay for themselves in two or three shipments by eliminating breakage. Suitable for parcel post or express shipments.

The Improved "Surety Cushion" Egg-Case is constructed of the best of

planed lumber. The ends are reinforced with strips of wood fastened just above the grooved handles so as to prevent the sides from loosening. The double-jointed link hinges, riveted on the inside, allow the cover to turn back without breaking off. It also has a snap catch lock and a small hole cut in the cover and side for sealing with a wire seal.

The trays hold each egg in a double pyramid cushion pocket, which prevents the eggs from coming in contact with one another, and also from rattling about.

Empty cases may be returned to the shipper for 15 cents apiece for any distance. Ask your local express office for further particulars. All cases metal strapped.

	Weight without Eggs	Each	Postpaid
2-dozen size....	6 lbs.....	\$2 00	\$2 15
4-dozen size....	7 $\frac{3}{8}$ lbs.....	2 25	2 42
5-dozen size....	8 lbs.....	2 35	2 52
6-dozen size....	8 $\frac{1}{2}$ lbs.....	2 50	2 68
8-dozen size....	9 $\frac{1}{2}$ lbs.....	2 80	2 98
10-dozen size....	10 $\frac{3}{4}$ lbs.....	3 05	3 24
12-dozen size....	12 $\frac{1}{2}$ lbs.....	3 35	3 57
15-dozen size....	14 lbs.....	3 60	3 83
30-dozen size....	25 lbs.....	5 25	

Extra trays 24-25-egg size (for 2-, 4-, 6-, 8-, and 12-dozen size cases), 15 cts. per tray; 30-egg size (for 5-, 10-, 15-, and 30-dozen size cases), 18 cts. per tray.

"Egg-Pak" Fibre Egg-Case

ELIMINATES ALL EGG-BREAKAGE

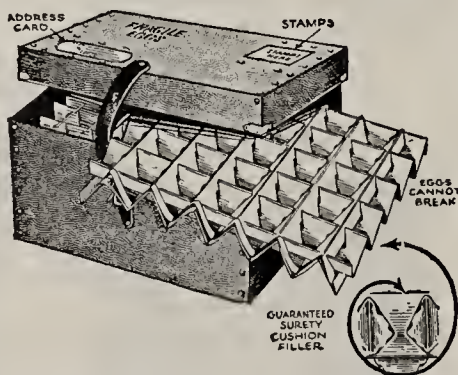
Made of indestructible fibre, riveted together like steel girders. It cannot break or dent. *Stand on it and see.* Eggs shipped in "Egg-Pak" will always arrive in the same condition in which they left. Patented reversible address card holder and stamp space makes "Egg-Pak" intermailable.

The patented "Surety Cushion" fillers in "Egg-Pak" hold any size egg separately in a cushion compartment.

Easily closed by the use of a genuine cowhide strap and buckle piece. May be sealed through buckle, if required. Buckle cannot open in transit.

	Weight with Fillers	Price	Postpaid
2-dozen size....	2 lbs.....	\$1 80	\$1 90
4-dozen size....	3 lbs.....	2 35	2 46
6-dozen size....	3 $\frac{1}{2}$ lbs.....	2 60	2 72
8-dozen size....	4 $\frac{3}{4}$ lbs.....	2 95	3 08
10-dozen size....	5 $\frac{1}{4}$ lbs.....	3 30	3 44
12-dozen size....	5 $\frac{3}{4}$ lbs.....	3 65	3 79

Extra trays, same price as trays for "Surety Cushion" Wooden Egg-Cases



The Lyon Roost Insulator



Its application is best explained as follows: An upright support, perhaps 1 $\frac{1}{2}$ or 2 inches square and of any desirable height, is used for each end of roosts. Holes are bored in at the top of these supports large enough to allow the Insulator to fit tight and deep enough to allow bottom of Insulator bell to rest on square top of upright.

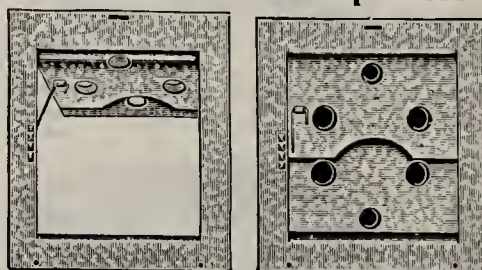
The roost-pole is then bored to fit tight on top of Insulator and deep enough to allow it to rest on the small shoulder provided for that purpose.

The bell-shaped cup is then kept partially filled with kerosene oil which either traps and destroys the vermin or turns them back in their travels up the supports towards the roost.

One Pair.....	\$0 25	\$0 35
Six Pairs.....	1 25	1 45

Postpaid

Moe's Trap Nest Front



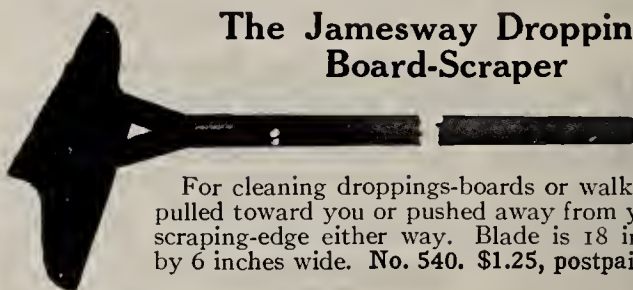
An inexpensive and useful device which meets a popular demand.

Made of best quality galvanized iron, simple in operation, with no small loose parts to get out of order.

Can be easily fitted to an ordinary wood-box or coop. Suitable for any breed of fowl. Effectively traps the hen, yet allows ample ventilation.

Door is hinged, making it easy to remove the hen or clean the nest. 11 in. wide by 12 in. high. Size of opening 8 in. by 9 in. No. 63. 45 cts. each, postpaid 55 cts.; \$5 per doz., postpaid \$5.25.

The Jamesway Droppings Board-Scraper

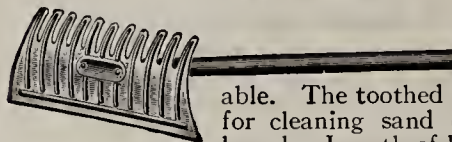


For cleaning droppings-boards or walks. Can be pulled toward you or pushed away from you. Keen scraping-edge either way. Blade is 18 inches long by 6 inches wide. No. 540. \$1.25, postpaid \$1.40.

Oakes Poultry-House Scraper

Shaped with a sharp angle at each end of scraping edge so as to get into corners and cracks. Heavy steel blade, 13 inches long, held rigid to handle by heavy, malleable braces. No. 995. \$1.35, postpaid \$1.55.

Moe's Handled Scraper



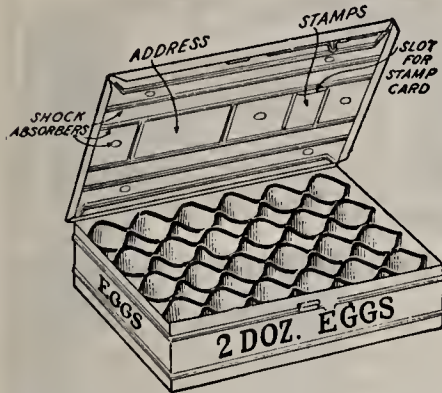
Made of hard, stiff steel. Light in weight, yet strong and durable. The toothed or rake edge is excellent for cleaning sand or sifted ashes on drop boards. Length of blade 9 $\frac{1}{2}$ inches; width 4 inches; with 30-inch hardwood handle securely riveted to the blade. No. 51, Handled Scraper, 35 cts. each; postpaid, 45 cts.

Moe's Scraper and Cleaner



Made of one piece of galvanized iron. No wood handle to get loose and come off. Just the thing to get in the corners when cleaning. 10 inches long. No. 47. 15 cts.; postpaid, 20 cts.

Aluminized Metal Egg-Crates



This is the New Model with the metal edged filler and it is a wonder. Solves every problem of shipping eggs and butter and other soft products by mail. Built for continued use; practically indestructible; lasts for years. No wrapping is required. A permanent lock pin attached to the crate holds the lid rigidly closed. Reversible address cards

are placed over eggs, address visible through opening in lid. Names of shipper and receiver are placed on each side of this card. Every user praises the New Model, with the Metal Edge Filler. Nothing better can be made to stand the jar and shocks in transit.

Any size Combination Crate desired can be supplied to carry eggs, with metal containers to hold butter, lard, sausage, honey, cut-up chicken, country sliced ham, etc. Any of these Combination Crates will be found surprisingly satisfactory. Butter, lard, and other soft products will not melt or run in warmest weather.

EGGS ONLY

	Each	Postpaid	Wt. empty
1-doz. size, all eggs.....	\$1 00	\$1 10	2 lbs.
2-doz. size, all eggs.....	1 25	1 37	4 lbs.
3-doz. size, all eggs.....	1 50	1 62	4 lbs.
4-doz. size, all eggs.....	1 75	1 88	5 lbs.
6-doz. size, all eggs.....	2 00	2 14	6 lbs.
9-doz. size, all eggs.....	2 50	2 66	8 lbs.
12-doz. size, all eggs.....	3 00	3 18	10 lbs.

Baby Chicks

For many years we have made a specialty of furnishing Day-old Chicks of all leading breeds. We supply only Chicks from selected matings and blood-tested flocks under state supervision. Price-list gladly sent on request.



Successful Handy Egg-Crate "JUST LIKE A SUIT-CASE"

Made of galvanized iron, except the cover—will last a lifetime. Light in weight; size, 17 inches long, 8 inches wide and 13 inches deep. Holds 15 dozen eggs; has adjustable top that fits into crate any depth desired. This feature is very desirable because you can pack 1 dozen eggs as well as 15 dozen, and prevent them from rolling around and breaking—adjustable top holds them in place no matter whether the crate is one-fourth, one-half or entirely full.

The 3 x 4 Folding Egg Cartons shown above are used as fillers for this Crate.

Crate Complete, with Fillers, \$2; postpaid \$2.25

Humpty Dumpty Egg-Carrier

THE BEST, CHEAPEST AND MOST CONVENIENT EGG-CARRIER IN EXISTENCE

Equipped with Safety Cushion Flats which practically eliminate breakage. No tool needed to set up these strong and durable carriers—no bothersome work in packing, and can be used over and over again.

	Each	Postpaid
3-dozen size, complete with fillers.....	\$0 45	\$0 55
6-dozen size, complete with fillers.....	50	60
12-dozen size, complete with fillers.....	55	70
15-dozen size, complete with fillers.....	60	80

Extra Fillers, 5 cts. each, 50 cts. per doz.; postpaid 55 cts. Case containing 120 three-dozen size fillers and 144 flats, \$3.25.

Blue Ribbon Chick Box

A safe and convenient carrier for shipping baby chicks either by express or parcel post. Made according to Association standards and are full 5½ inches in depth. Prices include staples, ready for assembling.

	Each	Ppd.	Doz.	Ppd.
25-Chick size. 11 x 9 x 5½ in.	\$0 15	\$0 25	\$1 10	\$1 35
50-Chick size. 18 x 11 x 5½ in.	20	30	1 65	1 95
100-Chick size. 22 x 18 x 5½ in.	25	35	2 35	

"HatchanEgg" Box

This box is so constructed with filler inserted, that it will resist crushing and blows received when in transit much better than a one-piece box or a box without a filler, such as the average box now on the market.

It is designed particularly for transportation of valuable eggs for hatching. The maximum of safety is assured.



Safe and Sure

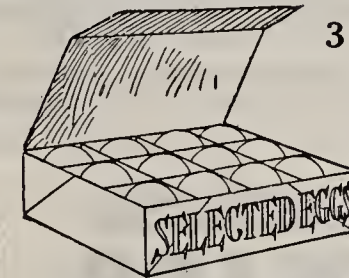
	Each	Postpaid	Doz.	Postpaid
No. 3. Holds 15 Eggs.....	\$0 25	\$0 35	\$2 30	\$2 65
No. 4. Holds 30 Eggs.....	35	40	3 50	3 90
No. 5. Holds 50 Eggs.....	45	55	4 75	5 25

2 x 6 Folding Egg Cartons



Market your eggs in this first-class Egg Carton. Holds one dozen eggs and made with full-cushion filler, giving full protection to the eggs and long front flap, which gives a rigid top to the box. Can be used with the Successful Handy Egg Crate, Humpty Dumpty Crate, or 30-dozen regulation egg-case. Not suitable for parcel post use.

	Postpaid		Postpaid
12 Cartons.....	\$0 25	\$0 35	250 Cartons... \$2 90
50 Cartons.....	85	1 05	500 Cartons... 5 50
100 Cartons.....	1 50	1 80	1,000 Cartons... 10 50

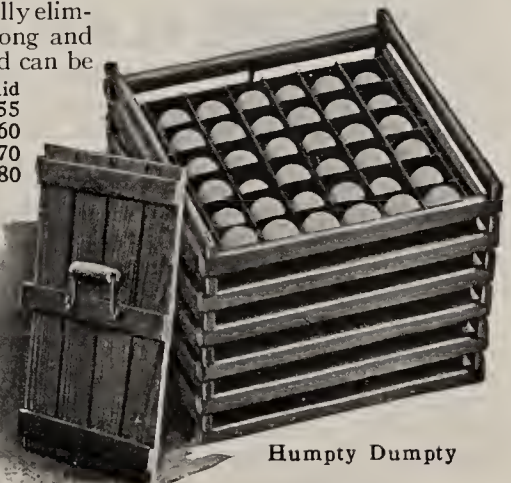


3 x 4 Folding Egg Cartons

One-dozen size. No printing

This is the regulation Folding Egg Carton, used where eggs are delivered direct to customers. It is not a parcel-post box. They are also used as fillers for the Successful Handy Egg-Crate.

	Postpaid		Postpaid
12 Boxes.....	\$0 20	\$0 30	100 Boxes.... \$1 00
50 Boxes.....	60	80	250 Boxes.... 1 95
			500 Boxes.... 3 65
			1,000 Boxes.... 6 75



Humpty Dumpty

REG. U.S. PAT. OFF.

CEL-O-GLASS

U.S. PATENT 1,580,287

CEL-O-GLASS is Needed Equipment for Poultry-Houses and Other Farm-Buildings

Cel-O-Glass is a time-tested profit-maker for farmers and poultry raisers. Its use increases egg-production, saves chicks, and builds poultry profits. Cel-O-Glass admits the ultra-violet rays of the sun. These rays keep poultry and other live-stock healthy; kill bacteria; prevent leg-weakness and the spread of disease; assure proper assimilation of the necessary bone-building minerals.

Cel-O-Glass is not only widely used on poultry-houses but also for storm-doors and windows, hog-houses, porches, coldframes, hotbeds, and dairy barns. Cel-O-Glass keeps interiors warm, lets in ultra-violet rays which ordinary glass and soiled cloth curtains keep out. The new, improved Cel-O-Glass is now guaranteed for 5 years when correctly installed.

WRITE FOR SAMPLE AND BOOKLET

	36-INCH WIDTH	28-INCH WIDTH
	Ppd.	Ppd.
100 lineal-foot Roll . . .	\$40 50 \$41 00	\$31 50 \$32 05
50 lineal-foot Roll . . .	20 75 21 15	16 25 16 60
25 lineal-foot Roll . . .	10 65 10 90	8 40 8 65

	36-INCH WIDTH	28-INCH WIDTH
	Ppd.	Ppd.
10 lineal feet.	\$4 50 \$4 70	\$3 50 \$3 65
5 lineal feet.	2 40 2 55	1 90 2 05

CEL-O-MEND. For repairing punctures in CEL-O-GLASS. 1/2pt. 45 cts., postpaid 55 cts.; pt. 75 cts., postpaid 85 cts.



CEL-O-GLASS Poultry Houses are Health Houses

Use Cel-O-Glass for

Laying-Houses	Front Porches
Brooder-Houses	Back Porches
Hog-Houses	Health-Windows
Coldframes	Sleeping-Porches
Hotbeds	Sun-Rooms
Dairy-Barns	Storm-Windows
Turkey-Houses	Storm-Doors
Milk-Houses	Cellar Windows
Rabbit-Hutches	Play-Houses
Pigeon-Lofts	Dog-Kennels



GENUINE WEATHERPROOF UNBREAKABLE FLEX-O-GLASS

Pat. Reg. T.M. Reg.

Use it for poultry-house windows. Lets in the ultra-violet rays of the sun—prevents disease—promotes growth—brings winter eggs—matures chicks earlier—withstands snow, sleet, and rain—won't break or shatter. Tested and recommended by foremost agricultural authorities. Excellent for hotbeds and windows in barns. Easy to install. In rolls 36 inches wide.

100-yard Roll, 900 square feet.	\$27 00	Postpaid \$27 75
50-yard Roll, 450 square feet.	13 50	13 90
10-yard Roll, 90 square feet.	3 00	3 20
Less than 10 yards, per yard	35	38

ASK FOR BOOKLET AND SAMPLE

GENUINE GLASS CLOTH

MUCH CHEAPER THAN GLASS

Glass Cloth is a strong fabric treated by a patented process to make it translucent, weather-proof, and water-proof.

Glass Cloth readily transmits the life-giving vitalizing ultra-violet rays of the sun. (Glass stops them.) These are the health rays of sunlight and are absolutely needed by poultry in winter months. Glass Cloth is also the ideal material for hotbeds and coldframes.

Easily put up. Some tacks and a hammer are all you need.

	IN ROLLS 36 INCHES WIDE	Postpaid
100-yard Roll, 900 square feet.	\$27 00	\$27 75
50-yard Roll, 450 square feet.	13 50	13 90
15-yard Roll, 135 square feet.	4 50	4 70
10-yard Roll, 90 square feet.	3 00	3 20
Less than 10 yards, per yard	35	38

BOOKLET AND SAMPLE ON REQUEST

Carbola

The Disinfecting White Paint

In Poultry-Houses, Cow-Barns, Etc.

Carbola is a white paint and powerful disinfectant combined in powder form. Simply stir the powder in a pail of water and it is ready for brush or sprayer—no waiting or straining. *Does not clog sprayer. Won't peel or flake.*

The powerful disinfectant does not evaporate but keeps its strength on the walls. Carbola will not spoil even in water and may be kept standing in pail to be used as wanted. One pound covers about 100 square feet.

Carbola is neither poisonous nor caustic—harmless to the smallest chick or stock that licks a painted surface. It gives walls and ceilings a smooth, white finish, increases the light, improves the appearance, and helps make buildings clean, sweet-smelling and free from mites and contagious disease germs. There is nothing better than Carbola for dairies, poultry-houses, cellars, dog-kennels, rabbit-hutches, garages, tree-trunks, etc.

As a Louse Powder for use on cattle, poultry, horses, hogs, dogs, etc., the dry powder will be found most satisfactory. The dry powder is applied like any other louse powder, and is very effective; yet it is harmless to even baby-chicks when used as directed.

	Postpaid
5 lbs.	\$0 75 \$0 90
10 lbs.	1 25 1 50
25 lbs.	2 85 3 25
50 lbs.	5 00 5 75

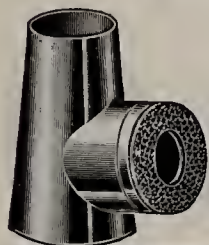


Moe's Egg-Tester

Used with an ordinary lamp (No. 2 burner) in a dark room.

It will illuminate the interior of the egg, and show if the chick is alive, and also show the size of air-cell in the egg.

No. 48. Moe's Egg-Tester. 25 cts. each; postpaid, 35 cts.



Reliable Reflecto Egg Candler

This Candler is quick in action and shows every defect in the egg instantly. It is equipped with a reflector that adds to the illumination of the entire egg, making it quick and thorough in candling. Can be attached to any light-socket. Complete, including cord and socket for 110 voltage. No. 700. \$1.30, postpaid \$1.45.



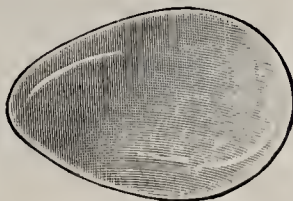
Glass Nest-Egg

Natural in appearance and uniform in size. Will not easily break.

They induce the hen to lay where she should—in the nests provided for her.

Hen size, 3 for 10 cts.; 25 cts. per doz.; postpaid, 35 cts. per doz.

Pigeon size, 5 cts. each; 40 cts. per doz.; postpaid, 50 cts. per doz.



Lime Nest-Egg

They look like real hens' eggs. Made from pure sterilized sulphate of lime. This product is well known among poultry-raisers for its value in keeping nests in a clean, healthful condition.

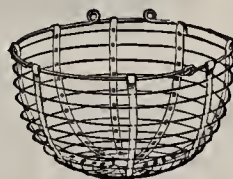
They do not break or crumble or absorb and hold the cold. Price, 3 for 10 cts.; 30 cts. per doz. Postpaid, 40 cts. per doz.

Wire Nests

Made of coppered steel wire, with flat steel ribs, and heavy top wire, all copper finish.

Provides a clean, sanitary nest for the setting hen. Easily kept free from vermin. Intended to fasten to wall with nails or screw-hooks. Can be readily changed and filled with fresh straw or hay.

No. 301. 14 in. x 7 in. \$0 25 \$0 35 \$2 90 \$3 15



Clay Pigeon Nests

Unglazed

9-in. diameter, 25 cts. each, doz. \$2.70. By express or freight.



Moe's Pigeon Nests

Made of galvanized iron. Diameter 8 inches, with a small hole punched in center so it can be tacked to a board. Generally used in pairs.

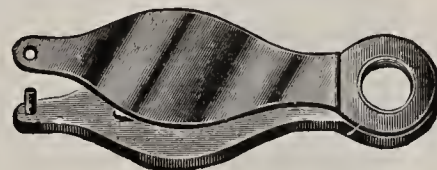
Light in weight, yet substantial, and easily cleaned.

No. 107. Pigeon Nests, 15 cts. each, postpaid 20 cts.; \$1.60 per doz., postpaid \$1.75.



Moe's Standard Poultry-Punch

A practical Punch for marking baby chicks. All steel, nickel plated, punches clean, hole is right size, will not bruise the foot. Price 15 cts., postpaid.



Moe's Ideal Poultry-Punch



An improved Punch, scissors type. Works easily, cuts cleanly, and does not pinch the foot.

Convenient to carry in vest-pocket and the lower end is an excellent cigar cutter.

Nickel-plated finish. Length 3½ inches.

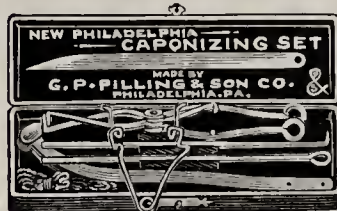
No. 39. Ideal Punch Each 35 cts.; postpaid 40 cts.

Caponizers

Large profits await the raiser of capons. Pilling's instruments are the acknowledged leaders in this line.

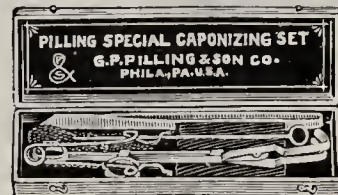
New Philadelphia Caponizing Set

This set has many admirers. It consists of a knife, for making the incision; the spreader, for holding sides open; sharp hook, for piercing skin; the Lansdowne Remover, for removing the testicles. Cords with hooks are for holding the bird. Cup forceps for removing any foreign matter. Prices (postpaid), in velvet-lined case \$3.50; in pasteboard box \$3.



Pilling Special Caponizing Set

The finest set in the world for the price. It is used just the same as other Caponizing Sets, except that the Testicle Remover cuts, like a pair of scissors, the cord of the testicle clean and clear as a whistle. The instruments in this set are put up in oak case sent postpaid with full, easy-to-use directions on receipt of \$5, postpaid.



Cornell Caponizing Set

Experiments in the use of various caponizing instruments recently carried on by E. W. Benjamin, Instructor of the Department of Poultry Husbandry at Cornell University, have resulted in the manufacture by us of the Cornell Caponizing Set.

This set—two Testicle Removers, Pilling-Farmer Twisting Scoop, and Pilling-Miles Remover—sells for the reasonable price of \$6, postpaid.



Lansdowne Caponizing Set

Lansdowne Automatic Testicle Remover is, as its name implies, automatic, quick, easy to use, and just the remover for the beginner.

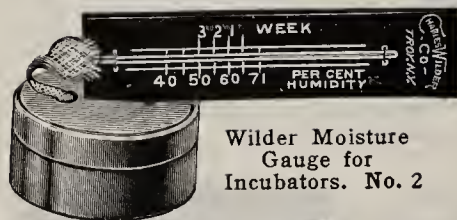
Does not have a lot of unnecessary springs which are liable to get out of order. The grasping loops are exactly same principle as the Miles Remover, which has

been in use for fifty years. Price \$4.50, postpaid.

Incubator and Brooder Extras

	Each	Postpaid
No. 1 Lamp Bowl, capacity 1 pt.....	\$0 50	\$0 60
No. 2 Lamp Bowl, capacity 1 qt.....	60	70
No. 3 Lamp Bowl, capacity 2 qts.....	75	85
No. 1 Zenith Burner. Uses $\frac{5}{8}$ -inch wick.....	50	55
No. 2 Zenith Burner. Uses $\frac{7}{8}$ -inch wick.....	65	70
No. 3 Zenith Burner. Uses 1 $\frac{1}{2}$ -inch wick.....	1 00	1 05
Metal Chimney.....	20	25
Nos. 1 and 2 Wicks. Dozen.....		30
No. 3 Wicks. Dozen.....		40
Red Felt Wicks. $\frac{5}{8}$ -in. width. Dozen.....		25
Red Felt Wicks. $\frac{7}{8}$ -in. width. Dozen.....		45
Red Felt Wicks. 1 $\frac{1}{2}$ -in. width. Dozen.....		55
Lamp Bowl for Buckeye Standard Incubators....	1 00	1 10
Lamp Burner for No. 65 Buckeye Incubator....	75	80
Lamp Burner for Nos. 66, 67, 68 and 69 Buckeye Incubators.....	1 00	1 05
Lamp Chimney for Buckeye Standard Incubators.....	50	55
Gas Burner for No. 65 Buckeye Incubator.....	2 00	2 15
Wafers for Wafer Regulator, 3-in.....	50	55
Wafers for Wafer Regulator, 4-in.....	80	85
Wafers for Wafer Regulator, 5-in.....	1 00	1 05
Wick for No. 27 Buckeye Blue Flame Brooder...	40	45
Wick for No. 28 and No. 29 Buckeye Blue Flame Brooder.....	65	70

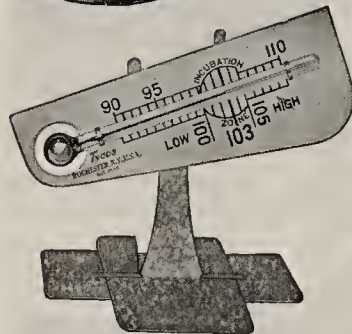
Thermometers and Hygrometers FOR INCUBATORS AND BROODERS. ACCURATE AND DEPENDABLE



Wilder Moisture
Gauge for
Incubators. No. 2



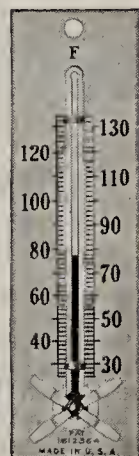
1046



5776



1112



5794



1123



5792

No. 5776. Tycos Incubator Thermometer, with stand.....	\$0 85	\$0 95
No. 1046. Buckeye Incubator Thermometer.....	75	85
No. 91. Buckeye Universal Thermometer. (Not illustrated.).....	1 00	1 10
No. 5794. Tycos Brooder Thermometer.....	60	70
No. 5792. Tycos Brooder Thermometer.....	85	95
No. 1112. Wilder Brooder Thermometer.....	60	70
No. 1123. Wilder Brooder Thermometer.....	90	1 00
No. 2. Wilder Moisture Gauge.....	1 25	1 35
No. 5796. Tycos Incubator Hygrometer.....	1 75	1 85

Books

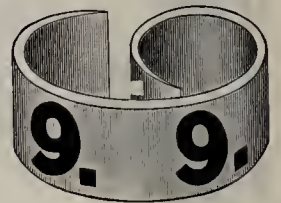
We have books on all subjects of Gardening, Poultry Raising, Rabbits, Ducks, Turkeys, Pigeons, Dogs, and Bees. You will find them profitable reading and many of them are not expensive. See pages 190 and 191.

Bandettes (Colored Celluloid Leg-Bands)

COLORS ARE FAST AND WILL NOT FADE

Bandettes are easily and quickly applied. Simply open out band, hook it on leg, and allow it to close. Made of special spring celluloid and will close up to the original size.

Furnished in six colors—Blue, Red, Yellow, Green, Cerise (Pink), and White. Sold only in unbroken sets of 25 of one color.



No. 4. For Baby Chicks. Numbered 1 to 500.

No. 6. For Pigeons. Numbered 1 to 500.

No. 9. For Leghorns. Numbered 1 to 3,000.

No. 11. For American Breeds. Numbered 1 to 2,000.

No. 12. For Asiatics. Numbered 1 to 500.

Nos. 4 and 6	Postpaid	Nos. 9, 11, and 12	Postpaid
25 Bands.....	\$0 40	25 Bands.....	\$0 60
50 Bands.....	70	50 Bands.....	1 00
100 Bands.....	1 30	100 Bands.....	1 80
250 Bands.....	3 10	250 Bands.....	4 35
500 Bands.....	6 00	500 Bands.....	8 50

Perfecto Spiral Leg-Bands

KNOW YOUR HENS ON SIGHT

In ten colors—Red, Green, Amber, Black, White, Pink, Yellow, Ruby, Light Blue, and Dark Blue.



Mark each bird for its pen. Give each pen a different color. Mark old birds and pullets differently and know what you are doing.

No. 1. $\frac{7}{8}$ -in. diam. for Asiatic Breeds.

No. 2. $\frac{3}{4}$ -in. diam. for American Breeds.

No. 3. $\frac{1}{2}$ -in. diam. for Leghorns, etc.

No. 4. $\frac{1}{2}$ -in. diam. for Bantams.

No. 5. $\frac{1}{4}$ -in. diam. for Pigeons.

No. 6. $\frac{1}{4}$ -in. diam. for Baby Chicks.

Nos. 1, 2, and 3	Postpaid	Nos. 4, 5, and 6	Postpaid
12 Bands.....	\$0 15	12 Bands.....	\$0 10
25 Bands.....	25	25 Bands.....	20
50 Bands.....	40	50 Bands.....	25
100 Bands.....	65	100 Bands.....	40
500 Bands.....	2 75	500 Bands.....	1 50
1,000 Bands.....	5 00	1,000 Bands.....	2 50

Colored Leader Adjustable Leg-Bands



For a general purpose band that provides quick and accurate identification, this Colored Leader cannot be equaled. It will fit anything from Bantam to Cochin, or Tom Turkey or Goose. Continuous line of color around the band so that a bird can be distinguished, so far as brood or pen is concerned, from a distance.

Furnished in Red, Blue, Green, White, Yellow, or Pink. Not numbered above 200. Prices postpaid.

12 Bands....\$0 30	50 Bands...\$0 85	500 Bands..\$6 50
25 Bands.... 50	100 Bands... 1 50	1,000 Bands..12 50

Moe's Aluminum Leg-Bands



Made of sheet aluminum, with large raised numbers, easy to read from a distance. Adjustable for any size fowl. Accurately made and quickly applied. Packed in paper cartons of 12, 25, 50 and 100 bands each. Numbered from 1 to 9,999. Prices postpaid.

12 Bands.....\$0 15	100 Bands.....\$0 65
25 Bands..... 25	500 Bands..... 3 00
50 Bands..... 40	1,000 Bands.....5 50

Seamless Leg-Bands (Pigeon Sizes Only)

Made of pure aluminum and well finished. Three sizes, Nos. 1, 2, and 3. Prices postpaid.

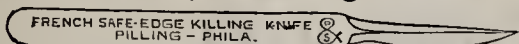
12 Bands....\$0 30	50 Bands...\$1 00	500 Bands..\$6 50
25 Bands.... 60	100 Bands... 1 50	1,000 Bands..12 50

French Poultry-Killing Knife



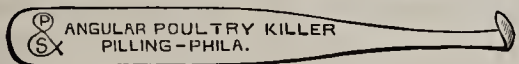
Price 60 cts., postpaid

Safe-Edge Killing Knife



Exactly same as French Killer except cut on one side only. Price 60 cts., postpaid.

Pilling Angular Poultry-Killer



Price 60 cts., postpaid

Philadelphia Gape-Worm Extractor



Price 30 cts., postpaid

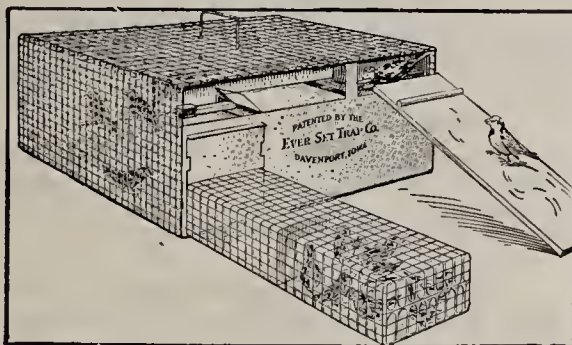
The Pittsburgh Shipping Coop



The most serviceable, sanitary, and durable Shipping Coop on the market. Made of the best galvanized steel bars and wire electrically welded together and sufficiently stayed to make it rigid throughout. The bottom is made of the best seasoned wood and is assembled by the floor-boards being stapled to three cross sections and reinforced with cleats on top.

Standard Size. 27 x 41 x 14 inches high.....\$3 10
Turkey Size. 27 x 41 x 20 inches high..... 3 65

• Ever-Set Sparrow Trap



Made of 1/2-inch galvanized hardware cloth. They have been fully tried out and have caught as high as 65 sparrows in one day in summer, and 40 in one day in winter in a single trap.

Size of trap 18 x 18 x 12 inches, with 3 x 5 x 18-inch receiving-cage (for drowning), with complete instructions.

To the Farmer and Poultryman. Fifty sparrows eat daily the equivalent of a quart of wheat. Very likely you have many more than 50 sparrows fattening on the high-priced feed that you intended for your poultry. An Ever-Set Sparrow Trap, in the month of June, 1919, caught 562 English sparrows in a back yard in the city of Davenport—1,529 in five months (June to October). How much feed would these 1,529 have stolen from your poultry-yard each day? Without stopping to figure, it is clear that an Ever-Set Trap pays for itself in a very short time. Price \$3.75, postpaid \$4.

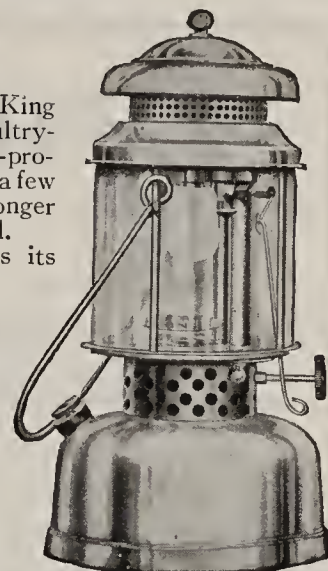
Storm King Lantern

350 CANDLE-POWER

Get more eggs by hanging a Storm King Lantern in your poultry-house. Poultrymen everywhere are increasing egg-production by using them in hen-houses a few hours each night and morning—longer feeding hours increase the egg-yield.

The Storm King makes and burns its own gas from common motor gasoline, giving more light than twenty oil lanterns and costing a little over a cent for three hours' use. Absolutely safe. Burns in any position and in any wind. No danger, even if tipped over. Tested by egg-producing authorities and has their unqualified approval.

Capacity of fount, 1 quart—burns 12 to 15 hours on one filling. Height 13 inches, weight 4 pounds. Equipped with Mica Chimney, 1 No. 1A Rag Mantle, and all accessories. Shipping weight, 5 pounds. Price \$6.25, postpaid \$6.50.



The NEVER-FAIL Time Switch

Changes the Hen's Habits



This simple but remarkable device automatically turns electric lights on or off at the exact time you wish it done. Cams on a cam-shaft connected to the main spring of a clock throw the switches, turning the light on or off, bright or dim, just as you desire. Can be located in the home or any other building and used with either direct or alternating current, with voltage ranging from 32 volts to 120 or 220 volts. Complete instructions are sent with each machine.

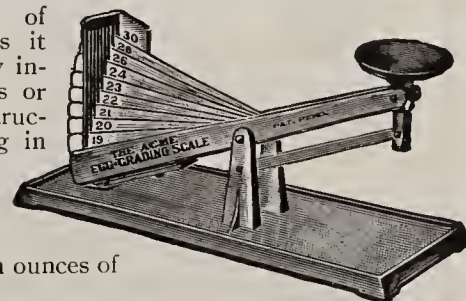
No. 11. Turns bright lights on or off. One operation.....	\$13 50	Postpaid \$13 75
No. 22. Turns bright lights on and off. Two operations.....	15 00	15 25
No. 33. Turns bright and dim lights on and off. Four operations.....	16 50	16 75
No. 55. Controls bright and dim lights evenings and bright lights mornings.....	18 50	18 75

The Acme Egg-Grading Scale

Graded Eggs Mean a Higher Market Value

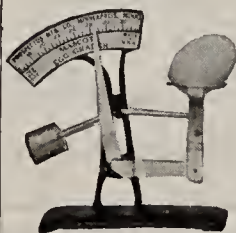
It is made entirely of aluminum, which makes it rustproof and practically indestructible. No springs or weights used in its construction. By placing an egg in the cup, the beam will automatically adjust itself. The lowest visible number on the blades will indicate the weight in ounces of one dozen like eggs.

Accurately grades all eggs ranging from 19 ounces to 30 ounces per dozen. Price \$2.85, postpaid.



Mascot Egg-Grading Scale

Made of aluminum and plated steel. Grades all eggs ranging from 16 to 32 ounces to the dozen. Dial is 4 inches long and 1 1/4 inches wide. Has double gradation. One gradation gives the weight per dozen; the other gradation gives the weight of the egg. Sold on money-back guarantee. Price \$2.70, postpaid.



Another Egg Scale is shown on page 159



Hi There! Use *Conkeys* Feeds

Vi-tal-ized with Y-O

Conkeys Buttermilk Starting Feed with Y-O

For low mortality, rapid growth, and no leg-weakness (rickets), feed Conkeys Buttermilk Starting Feed with Y-O. It is high in digestible nutrients and low in fiber. Avoid untested, unbalanced, so-called "cheap" feeds—they're dangerous. Use Conkeys—"It fills the bill."

Approximate Analysis: Protein 16%; Fat 4.5%; Fiber 5%; N. F. E. 55%; Carbo. 60%.

Ingredients: Dried Buttermilk, Cornmeal, Corn Feed Meal, Pulverized Oats, Wheat Middlings, Dried Skimmed Milk, Soybean Oil-meal, 1% Steamed Bonemeal, Blood-flour, Meat- and Bone-scrap, Crude Milk Albumen, 1½% Limestone (97% pure Calcium Carbonate), ¼% Salt, Y-O (Cod-liver Oil, Yeast, Soybean Oil-meal, Wheat Middlings, ¼% Spanish Red Oxide of Iron).



Conkeys Gecco Egg Mash with Y-O

A High-grade Egg Mash at a Surprisingly Low Price

This feed is composed of buttermilk, meat, bone, and wholesome grains in precisely the right proportion to keep your flock in prime condition and make them lay. Remember, a properly balanced feed is the secret of heavy egg-production. If your hens haven't exactly the ingredients required, they simply won't lay. You can't beat this law of nature. Conkeys Gecco Egg Mash with Y-O is the result of years of study and tests. Feed it for economical egg-production.

Approximate Analysis: Protein 20%; Fat 5%; Fiber 7%; N. F. E. 46%; Carbo. 53%.



Conkeys All-Mash Chick Ration with Y-O

If you are raising your chicks the all-mash way you will like Conkeys All-Mash Chick Ration with Y-O. It is a completely balanced feed—all you have to do is to put it in the hoppers and let the chicks eat all they want. After about five or six weeks change to Conkeys Gecco Growing Mash with Y-O.

Approximate Analysis: Protein 16%; Fat 4.5%; Fiber 5.5%; N. F. E. 54%; Carbo. 59.5%.

Ingredients: Dried Buttermilk, Corn Feed Meal, Wheat Middlings, Pulverized Oats, Crude Milk Albumen, Meat- and Bone-scrap, Dried Skimmed Milk, 1% Steamed Bonemeal, Alfalfa Leaf-meal, Soybean Oil-meal, 1½% Limestone (97% pure Calcium Carbonate), ¼% Salt, Y-O (Cod-liver Oil, Yeast, Soybean Oil-meal, Wheat Middlings, ¼% Spanish Red Oxide of Iron).



Conkeys Turkey Starting and Growing Mash with Y-O

Turkey poulters need a high-protein feed. For this reason, feed the poulters Conkeys Turkey Starting and Growing Mash with Y-O the first 8 to 9 weeks. From this time on grains should be given, gradually, until the poulters are allowed all the grains they desire. Conkey's Turkey Starting and Growing Mash with Y-O contains every food ingredient needed to make poulters live, grow fast, and feather rapidly, and in addition it is vitalized with Conkeys Y-O.

Approximate Analysis: Protein 23%; Fat 6%; Fiber 7%; N. F. E. 45.50%; Carbo. 52.50%.



Conkeys Broiler Mash with Y-O

Chicks raised for broiler purposes will do best when fed Conkeys Broiler Mash with Y-O continuously, right from the start until they are marketed. It meets all requirements whether chicks are in storage brooders, batteries, in yards, or on range. Especially built for chicks that are to be marketed as broilers—not for chicks being raised for future layers. For the latter, use Conkeys Buttermilk Starting Feed with Y-O and Chick Grains or Conkeys All-Mash Chick Ration with Y-O.

Approximate Analysis: Protein 19%; Fat 6%; Fiber 6%; N. F. E. 50%; Carbo. 56%.



Conkeys Gecco Growing Mash with Y-O

If the growing pullets at any time lack vitamins A, B, and D, the result will be slow-developing, undersized birds. For this reason, Y-O is mixed in Conkeys Gecco Growing Mash. Y-O contains cod-liver oil combined with Marmite yeast. It insures, in a potent and lasting form, the A, B, and D vitamins so necessary for the growing stock. This mash supplies all necessary materials for strong frames and solid flesh. Don't neglect your growing stock.

Approximate Analysis: Protein 18%; Fat 5%; Fiber 7%; N. F. E. 50%; Carbo. 57%.



Conkeys Scratch Grains

They're Clean, Pure and Wholesome

Conkeys Chick Grains

Just the thing to feed in connection with Conkeys Buttermilk Starting Feed with Y-O after the chicks are two to three weeks old.

Conkeys Growing Grains

Cracked grains, larger in size than Chick Grains, and balanced especially for growing birds. Scatter in litter or feed in hopper same as you do mash. These grains with Conkeys Gecco Growing Mash make the ration complete.

Conkeys Scratch Grains

Feed these to the laying flock with Conkeys Gecco Egg Mash to round out the hens' daily ration. Grains help to maintain body weight—very necessary for continuous, heavy laying.

Conkeys Pigeon Feed

A first-class mixture containing peas, Kaffir corn, wheat, buckwheat, and millet.

Conkeys Poultry Book FREE

If you call at our store, or mailed for 4 cents in stamps.

"Nestco" Buttermilk

Known all over the East for its quality and freshness.

A life-saver for chicks. Promotes rapid, healthy growth. Unequaled as an egg-producer for pullets and hens. Feed it regularly and watch your young stock grow and develop into active, healthy birds. It can be fed with safety in any quantity to all poultry, regardless of age.

The success in manufacturing high-class Condensed Buttermilk begins with the handling of the cream. Ripening a batch of Buttermilk properly requires as much skill and care as does a batch of the finest bread-or cake-dough. Bacterial life and vitamins cannot be preserved in Buttermilk where artificial acids, alkalis, or high temperatures are employed in any one place of its manufacture.

By strict factory supervision and sales policy, poultry and turkey raisers can be assured the highest efficiency possible in "Nestco" Buttermilk.

"Nestco" Buttermilk is packed in barrels, half-barrels, and kegs.

"Chamberlain's Perfect" Chick Starter and Developing Feed

with Buttermilk, Cod-Liver Oil, Animal Proteins



Nature's food for Baby Chicks, Turkey Poults, Bantams, Pheasants, and Ducklings.

This original and scientifically correct starting-food is the only dry, granular, baby chick food with animal proteins, buttermilk, and cod-liver oil—all complete in one sack.



It is a wheat and oat-meal basis food, having ground meat, bone, charcoal, and all other essential ingredients. No corn—made right—no bowel trouble.



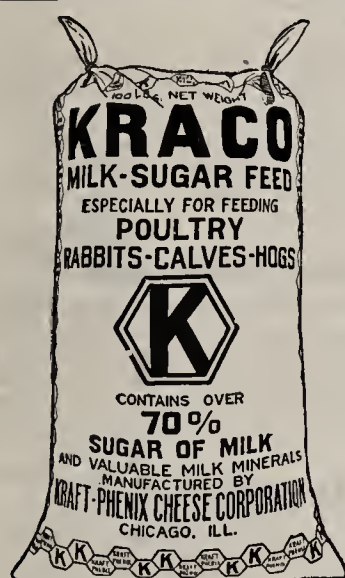
More Profit from Your Poultry

"Kraco" is made from liquid whey and contains the valuable milk-minerals needed in a poultry-feed. It does not destroy the balance of your feed-ration.

Feed "KRACO" Milk Sugar Feed

FOR BABY CHICKS. Feed 7½ per cent "Kraco" Milk Sugar Feed and see how greedily they eat their mash. Note the health and thrift.

FOR GROWING BIRDS. On account of its low protein content, growing birds get the health and thrift of milk-feeding without the danger of high protein. Feed them 5 per cent "Kraco."



FOR LAYING HENS. Three per cent "Kraco" Milk Sugar Feed keeps layers in the best of condition. If you follow the use of "Kraco" through the entire year, you will get much greater return from your investment in feed.

FOR COCCIDIOSIS. When this disease starts, stop it quickly by using 25 per cent "Kraco" for a few days.

Miscellaneous Seeds and Grains

Cracked Corn	Canary Seed	Wheat
Whole Corn	Rape Seed	Buckwheat
Pigeon Corn	Kaffir Corn	Millet
Pinhead Oatmeal	Pigeon Peas	Alfalfa Leaf Meal
Hulled Oats	Whole Flaxseed	Oil-Meal
Sunflower Seed	Flaxseed Meal	Gluten Meal
Hemp Seed	Barley	Cotton Seed Meal

Our stocks of the above are carefully selected and will be found equal to any on the market.

Spratt's Pheasant Meal Nos. 3, 5, and 12



No. 3 Coarse (for adult birds)

No. 5 Medium (after three weeks old)

No. 12 Fine (before three weeks old)

Is prepared strictly according to modern scientific methods and is the result of careful and exhaustive experiments.

It has been demonstrated and is admitted by all experts that to rear birds successfully and bring them to the highest state of perfection they must have, while very young, a cooked food. Spratt's Pheasant Meal is composed of cereals, meat, vegetable, bone, and shell in judicious combination.

Spratt's Maxco

To develop healthy, full-sized birds every feeding care must be given to Pheasant poults. Spratt's Maxco No. 12 is easy to digest, promotes quick feathering and fortifies the poult against all possible ill effects of weather and disease.

Ask for free copy of Spratt's Pheasant Bulletin.



Belle Brand Crushed Oyster Shells

Make Poultry Pay!

Crushed Oyster Shells have long been recognized as a most important article for poultry yards. They should be kept where the fowls can have easy access to them all the year round, as experience has demonstrated that fowls need them in summer as well as winter. They supply carbonate of lime in natural form, act as a grit, and produce a firm, hard shell. Belle Brand shells are dry, and, having been carefully screened, are free from dust and dirt.

We carry two sizes in stock, Coarse and Fine, the prices of which are the same.

Pearl Grit

A clean, white limestone Grit which is of proper hardness to serve as a grinder and at the same time, because of its high calcium carbonate content, supplies the necessary minerals for growing chicks and laying hens. The claims made for Pearl (Limestone) Grit have been verified at a great number of experiment stations in the United States. Furnished in two sizes—coarse for poultry and fine ground for chicks.



Mica Crystal Grit

Analysis proves that Mica Crystal Grit is a grit containing a proper combination of Mica, Quartz, Aluminum and Iron essential to all kinds of poultry. The peculiar formation of this grit, containing a large per cent of small flakes of Mica, assures at all times a sharp grinding surface. The grit will not wear smooth but will keep sharp until entirely worn out.

The grit wears out but does not dissolve, thereby giving a longer service than other grits.

Furnished in three sizes, "Poultry," "Pigeon," and "Chick," all at the same price.

Broschkowsky's Health Grit

For pigeons. Has a friend in every fancier who has tried it.

Every ingredient entering into the composition of Broschkowsky's Health Grit is the best obtainable, clean and is prepared amid sanitary surroundings. One trial will convince you of its superior quality. It contains nothing injurious of any nature; keeps your birds' digestive organs in prime order; provides the proper shell material; assists the birds in the moult; raises more and stronger youngsters; and wards off many troublesome diseases.

Red Cross Health Grit

Since 1903

For Pigeons, Fowls, and Cage-Birds

Positively the Best. A formulated mixture containing a great variety of gritty particles and materials with tonic properties, including everything the bird needs in proper proportions.

You save all other trouble and expense when using Red Cross, as only water and good feed in addition are required to keep birds in perfect health.

They Eat It Like a New-Found Luxury. All birds relish it. Contains in condensed form the best tissue-building ingredients for birds known to science. A reconstructive tonic mixture of only pure properties. Never use chicken grit for pigeons.

Good grain alone will not make hens lay, squabs plump, or birds sing; they have no teeth and must have grit to grind their food and it should be a palatable grit mixture they relish.



Darling's Meat Scraps

Today Darling's Meat Scraps are made by a new process developed, patented, and used exclusively by Darling & Co.—a process that insures a highly palatable product, thoroughly sterilized, and at the same time retaining all the valuable feeding elements found in Meat Scraps. When you feed Darling's Meat Scraps you are getting a wholesome, nutritious feed, free from excessive fat. It has been used with gratifying success at various state experiment stations and is enthusiastically endorsed by leading poultrymen in all parts of the United States. Purely on its merits, we recommend it to you. Furnished in two grades, Regular and Fine.

Struven's Fish Meal

This is made from the whole menhaden fish, fresh from the sea. It contains all the flesh, bones, and internal organs of the menhaden fish.

The minerals of Struven's Fish Meal prevent leg-weakness or rickets. Its iodine prevents goiter, promotes assimilation of food, and improves the coat or plumage. Its proteins are 95 per cent digestible and keep animal and fowl peppy and in splendid flesh. Its fats are the source of two of the most valuable vitamins—"A" and "D."

The average analysis of Struven's Fish Meal varies from 58 to 62 per cent Protein; 6 to 10 per cent Fats; 20 to 22 per cent Minerals; less than 1 per cent Fiber.



Yankee Brand Dried Buttermilk

It contains everything found in whole milk, and whole milk is universally recognized as the best food for man or animal. It contains no fiber. Every ounce of it is utilized in maintaining and building animal tissues, as it contains the most valuable constituents of all foods. In feeding Dried Buttermilk you feed milk solids. Contains 32 to 33 per cent milk protein and 5 per cent fat.

Butterfly Brand Dry Skim-Milk

A sweet, cream-colored powder, rich in vitamins and almost totally soluble in water. It carries an average analysis of 36 per cent protein, and contains no fiber. One hundred pounds of Dry Skim-Milk represents the total milk solids found in 1,200 pounds of liquid skim-milk, and supplies the vitamins, protein, and mineral matter (especially calcium) which are essential in the diet of all young animals for rapid growth.

Hubbard's Sunshine Turkey Starter Mash

Made from a wide variety of 22 choice ingredients of animal and vegetable origin, blended scientifically to make a perfect balance. The addition of sufficient minerals makes it truly the best Starting Mash that you can possibly give turkey poults. Contains 26% protein. It gives the poults that quick, early "send-off" which is so essential for proper development and rapid growth. It builds greater resistance to disease, and thereby lowers the mortality. It builds sturdy frames and bones and plenty of that high-quality flesh that always commands a premium price.

Cut Red Clover

Cut Red Clover is one of the best green feeds for winter egg-production. The grade we offer is the purest and best to be had. Makes an excellent litter for chicks.

Darling's Special Steamed Bone-Meal

Darling's Special Bone-Meal was developed to meet the urgent need for a feed rich in available phosphates, palatable, and suited to the mineral requirements of all live-stock and poultry. It is finely ground for convenience in mash mixtures and is especially valuable during growing and moulting periods for poultry. As a part of dairy cattle and hog rations, Darling's Special Bone-Meal provides minerals in an organic form that are readily absorbed by the body system, insuring quicker and better results in growth and production. Recommended by those who have used it.

Poultry Charcoal

Keeps poultry strong, healthy, and in good laying condition. Aids digestion, corrects wrong feeding and prevents disease. Fowls young and old should have free access to it at all times. We carry two sizes in stock—Medium and Fine.

For prices on above, see our monthly feed price-list



Nopco Cod-Liver Oil (U. S. P.)

Fortified in Vitamin D Potency

Nopco is fortified in Vitamin D—it therefore goes farther than ordinary fish or cod-liver oils. Nopco is tested for vitamin content before and after it is fortified with the Vitamin D concentrate extracted by the Columbia University process. It is tested for both Vitamins A and D on albino rats and is further proved for Vitamin D by an eight-weeks' test on chicks. Every dollar you spend for Nopco Fortified in Vitamin D is an investment in thrift.

Qt. can 75 cts., postpaid 90 cts.; 1-gal. can \$2.75, postpaid \$3.05; 5-gal. can \$10.75; 30-gal. drum \$43.

Pratt's Vitamin-Tested Cod-Liver Oil

PREPARED SOLELY FOR POULTRY AND ANIMALS



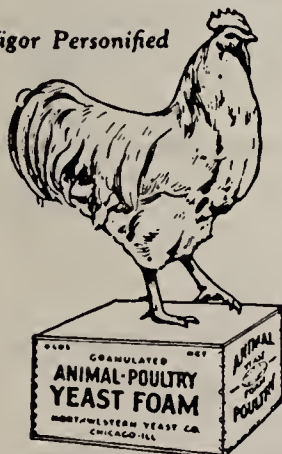
Cod-Liver Oil derives its great feeding properties and value from its content of vitamins "A" and "D," of which it is the richest known source. Pratt's Cod-Liver Oil is a pure, clear, light yellow, tested oil, with a vitamin content guaranteed to conform to the standard of the United States Pharmacopœia.

Pratt's Cod-Liver Oil, added to the feed of baby chicks, aids growth, promotes health, prevents leg-weakness, and decreases mortality. The use of Cod-Liver Oil for layers results in better health, fewer deaths, more and better-shelled eggs, increased hatchability of eggs, quicker growth, and greater weight in market stock.

Add it to the feed of dogs, cats, cows, steers, hogs, sheep, squabs, turkeys, and pet stock. Gal. can \$1.80, postpaid \$2.10; 5-gal. drum \$6. 30-gal. drum, with faucet, \$24.50; 50-gal. drum \$39.50, shipped from factory, freight prepaid.

Animal-Poultry Yeast Foam

Vigor Personified



To get the most feeding value from any feed used—that is the principal object of adding Animal-Poultry Yeast Foam to any ration.

To get all the Vitamin B we possibly can into a feed—that is another object.

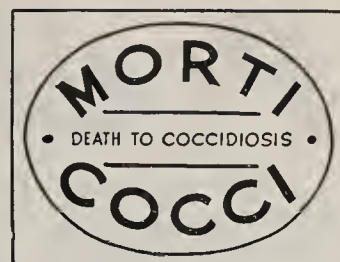
Yeast Foam stimulates the reproductive organs and makes more eggs; it maintains health and vigor and aids digestion; produces bigger and stronger chicks. Increases milk-production and butterfat in dairy cattle. Promotes rapid growth and builds resistance of pigs. Yeast Foam will do for all kinds of animals and birds what it does for poultry, cattle, and hogs. Mix it in the feed for dogs, rabbits, turkeys, pigeons, ducks, and foxes. It is easy to mix and

does not spoil. 4-lb. box \$1, postpaid \$1.15.

A Reliable Remedy for Coccidiosis or Bloody Diarrhea

This dreadful disease has caused the loss of thousands of chicks, and often entire flocks have been practically swept away. Morti-Cocci was developed by a poultryman of many years' experience. It is

used and recommended by many leading poultrymen. The remedy should always be kept on hand for immediate use at the first symptoms of the disease. Add it to the drinking-water. A gallon will eradicate the disease from 500 chicks. Complete directions on package. Qt. \$1.50, 1/2 gal. \$2.50, gal. \$4; postpaid \$1.65, \$2.75, and \$4.40.



"Black Leaf 40"
WORKS WHILE CHICKENS ROOST

Paint it on the roosts

A sure method for controlling body-lice. Is also effective when applied as a spray against poultry mites. One ounce will paint about 12 or 15 running feet of roost. Paint it undiluted on the top of the roosts and cross-arms, about half an hour before the birds perch for the night. When used as a spray against poultry mites, dilute Black Leaf 40 at the rate of about one tablespoonful to one gallon of water and add about 1/2 ounce of ordinary laundry soap. Dissolve the soap in hot water. 1-oz. bottle 35 cts., 5-oz. can \$1, 1-lb. can \$2.25. (Not mailable.)

Ocolum

Scientific Remedy and Preventive for Cholera, Roup, White Diarrhea, and Sore Head; also Cure for Gapes

Give your hens Ocolum and they will get heavier, their combs will get red and stay red; they will lay much better and more regularly, and in the fall and winter, you will get eggs while the other fellow is vainly looking for the eggs that do not come.

Bottle \$0 50
Large Bottle 1 00



Walko Tablets

For the drinking-water for baby chicks, turkeys, ducks, or geese; also for older fowls.

Especially valuable for diarrhea and loose-bowel trouble among incubator chicks. Powerfully destructive to germ-life, yet perfectly safe to give little chicks in their drinking-water as soon as they are out of the shell. 50 cts. and \$1; postpaid 53 cts. and \$1.05.

Ikton Soluble Organic Sulfur

A scientific product containing pure, soluble, organic sulfur. When added to feeds it replaces the sulfur that is used up by the fowl in egg-laying and breeding. Use one ounce to every 100 pounds of dry feed for chicks up to ten weeks of age—only two ounces for older birds. Lb. can \$3, postpaid \$3.10.

Roto Pigeon Salt

A Necessity to the Health of Pigeons

Roto Pigeon Salt is compressed into bricks that are not affected by any climatic conditions. Size of Bricks, 7 1/2 x 3 1/2 x 2 inches. Each 25 cts., postpaid 35 cts.; doz. \$2.25, postpaid \$2.40.

Ex-Cel-So Rabbit Salt Spools

Made from pure salt with sulfur added. No feeder or holding device necessary, as Spools are fastened to wall by means of nail or screw through hole in center. Size, 2 in. diam., 7/8 in. thick.

Each 5 cts.; doz. 50 cts., postpaid 70 cts.

Pratts

Poultry Feeds and Remedies

HEALTHY BIRDS AND LOTS OF EGGS, THE TWO BIG THINGS IN POULTRY-RAISING, FOLLOW THE USE OF PRATTS



Pratts Poultry Regulator

Builds up vitality, promotes sound digestion, sharpens appetite, and puts birds into condition for heavy egg-laying or winning blue ribbons.

Given to breeding stock, it increases the fertility of eggs, strong in vitality, that will hatch healthy chicks that will develop into husky pullets and cockerels.

Pratts is the original Poultry Regulator of America, and is in use by the most successful poultry-raisers everywhere. It will help prevent many of the common poultry ailments. Pkgs.

25 cts. and 50 cts.; postpaid, 30 cts. and 60 cts.; 12-lb. pkg. \$1.40, postpaid \$1.65; 25-lb. pails \$2.50, postpaid \$2.90; 100-lb. drum \$3.50.

Pratts N-K Capsules

A specially air-tight coated Capsule of nicotine and kamala for individual treatment for tape- and round-worms. Easy to give; contents always keep fresh and powerful. Ingredients recommended by all poultry authorities. N-K's are certain in action, safe, economical, and easy to use. Made in two sizes, for adults, and chicks.

Adult Size. Pkg. of 50 capsules 75 cts., \$1.35 per 100, \$5 for 500.
Chick Size. Pkt. of 50 capsules 50 cts., 90 cts. per 100, postpaid.



Pratts S/H

Stop big poultry losses from roup, pneumonia, diarrhea, coccidiosis and other infectious diseases. Pratts S/H used constantly in the drinking water will help prevent the spread of these diseases.

Also effective for disinfecting hatching eggs, incubators, brooders, and fattening crates.

10 ozs. 50 cts., qt. 90 cts., gal. \$2, 5 gals. \$8.50, not prepaid.



Pratts Poultry Worm Powder

For effective and practical flock treatment. Rids poultry of large, round- and tapeworms as well as many other kinds. Safe, easy, and economical to use. Does not require handling or individual dosing of the birds or affect egg-production or growth during treatment. 50 cts. and \$1; postpaid, 60 cts. and \$1.15; 25-lb. bag \$3.60, postpaid \$4.



Pratts Roost Paint

A solution of nicotine combined with other insecticides. Kills lice as quick as lightning. No handling of birds necessary. Just paint it on the roosts. Brush free with every can. 1/2pt. 75 cts., pt. \$1.25, qt. \$2, gal. \$6 (not mailable).

Pratts R-P Tablets

For roup, colds, and similar diseases

Pkgs. 25 cts. and 50 cts.; postpaid, 30 cts. and 55 cts.

Pratts Chick Tablets

Formerly known as Pratt's White Diarrhoea Remedy

Pkgs. 25 cts. and 50 cts.; postpaid, 30 cts. and 55 cts.

Pratts Disinfectant FOR STOCK AND POULTRY

A quick, effective germicide, insecticide, and deodorant. As a spray around stables, cow- and hog-lots, and for use on dogs, cats, and pets generally, it is unsurpassed for effectiveness. It is non-irritating and its pleasing, clean odor makes it admirable for household use. Pt. 35 cts., qt. 50 cts., 2 qts. 85 cts., gal. \$1.45; postpaid, 45 cts., 65 cts., \$1.05, and \$1.75; 5-gal. can \$6.50.



Pratts Red Mite Special

Qt. 60 cts., 1/2gal. \$1, gal. \$1.60; postpaid, 75 cts., \$1.20, and \$1.90.

Pratts Powdered Lice-Killer

Pkgs. 25 cts. and 50 cts.; postpaid, 30 cts. and 55 cts.

Pratts Feeds

Pratts are the highest quality poultry feeds made in America. Backed by over fifty years' experience with poultry, every ingredient carefully selected and processed in the most modern poultry-feed mill in the United States, they are scientifically and practically correct. Pratts Feeds give results when others fail and pay bigger profits to the users. There is a Pratt feed for every poultry need and every age of fowl. Start your birds on Pratts and follow the Pratt system if you want real success and profit.



Pratts Buttermilk Baby Chick Food

This original "baby food for baby chicks" has taken all the guess, worry, and loss out of raising chicks. Pratts is guaranteed to raise every livable chick. A perfect "baby food" for young fowls. In packages and 5, 10, 25, 50, and 100-lb. bags.

After the husky little fellows are about two weeks old, gradually switch them to

Pratts Buttermilk Growing Mash

Made of the most wholesome ingredients, it supplies an abundance of every element needed for making bone, muscle, feathers, and health. Insures vigor and quick, uniform growth. Feed Pratts and watch them grow. When they are matured give them

Pratts Buttermilk Laying Mash

The food that "makes eggs." Every ounce is real food that nourishes and keeps your hens laying and healthy. Appetizing. You fill the hopper and the hens will fill the nest.

Pratts Scratch Feeds

Pratts Chick Size Scratch Feed for Baby Chicks.

Pratts Intermediate Size Scratch Feed for Growing and Laying Stock.

Pratts Large Size Scratch Feed for Laying Hens.

Pratts Pigeon Feed for Pigeons.

For prices on above Feeds, see our Poultry Feed Price-List accompanying this catalogue

We Recommend Burrell-Dugger Poultry Remedies

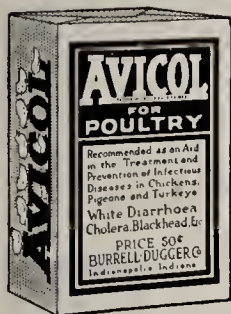
Burrell-Dugger Poultry Remedies have been used by thousands of poultry owners, from coast to coast, for many years, and they have more than made good.

They are specialized remedies for poultry, produced in an up-to-date modern laboratory, just as scientifically and carefully as medicines for human beings.

Knowing the satisfaction which Burrell-Dugger remedies have given our customers, we do not hesitate to recommend them strongly. Every one is guaranteed to satisfy you, or your money will be promptly refunded in full.



FOR CHICK DIARRHEA



Use Avicol Regularly! It Will Pay You

Don't sit back, and say your loss of baby chicks can't be stopped. It can be stopped—easily, quickly, and at almost no expense by using Avicol in the drinking water occasionally. Avicol is a special bowel astringent, and helps the chick withstand infection.

Easy to give. Simply drop an Avicol Tablet in the drinking water. The chickens doctor themselves.

After you have once tried Avicol, you would no more think of trying to raise baby chicks without it than you would think of denying them food.

Avicol should be in the very first water the little chicks drink. And it costs so little that it will pay you to keep it in the drinking-water all the time, for all the flock, old and young.

Avicol is fully guaranteed. Your money will be promptly refunded without question or quibble if it doesn't satisfy you perfectly.

Price, 50 cts., postpaid 55 cts.; large size (holds two and one-half times 50-ct. size), \$1, postpaid \$1.10.



"I Need T. S. F."

T. S. F. (Talcimized Sodium Fluoride) KILLS CHICKEN LICE

The U. S. Department of Agriculture and most leading State Agricultural Colleges endorse and recommend the Sodium Fluoride method of killing poultry lice.

Lice have probably cost the poultryman more money than any other poultry ailment. Wherever present, their effect is seen in stunting the growth, injuring the health, and reducing the egg-production of the whole flock.

After years of study and after numerous tests they report it the most effective, positive way to get rid of poultry lice. They say it kills all lice—both old and young—including the lice that hatch from eggs present on the fowl at the time of treatment.

For positive results be sure to get the genuine Talcimized Sodium Fluoride (call it T. S. F.) put up by the Burrell-Dugger Co. It is specially processed and prepared especially for poultry use, and is in a convenient, shaker-top package, bearing the U. S. Government's instructions for applying. One small package will treat about 40 chickens.

Price, small size 35 cts., postpaid 40 cts.; large size (twice as much), 60 cts., postpaid 70 cts. Special size (five times 60-ct. size), \$2.50, postpaid \$2.65.



DON SUNG

Tonic and Conditioner for Laying Hens

Don Sung is a concentrated medicine—no bulk or filler—ready to add to the mash-feed. It has a direct tonic action and doesn't force or hurt the hen in any way. It does its wonderful work by putting the hen in good health, and helping maintain that health.

Costs Nothing to Try

Every poultry raiser is invited to try Don Sung—at our risk. Separate 15 hens and give them Don Sung for one month. The 50-ct. Trial Size handles this test. If Don Sung pays you, keep on with it. If you don't think it has paid you, tell us, and back comes your money. No argument to it. Don Sung is guaranteed—try it, at our risk.

Prices of Don Sung Tablets: Small guaranteed size, 50 cts.; large size (3 times 50-ct. size), \$1; special size (6 times \$1 size), \$5.



Group-Over

(Formerly called Roup-Over)

A New, Prompt,
Positive Guaranteed Treatment

FOR

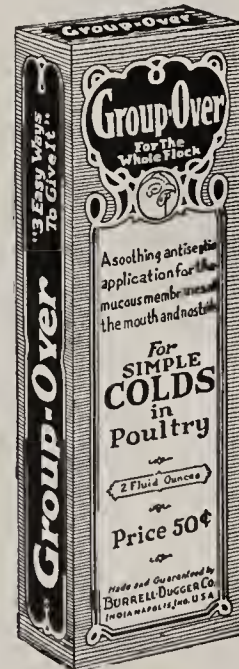
COLDS IN POULTRY

Keep Group-Over Handy—
Ready to Use

Keep a bottle of Group-Over on hand, and at the first symptom of a cold in your flock, start giving it to every affected bird. It clears the air-passages and brings relief with magic quickness. Group-Over is easily given. It comes in a liquid form and a few drops do the work.

This famous remedy is positively guaranteed to give complete, prompt, and positive results, or your money will be refunded in full. There is nothing on the market like Group-Over for roup, colds, and canker.

Prices, 50 cts., postpaid 55 cts.; \$1 (three times 50-ct. size), postpaid \$1.10; \$3 (more than 5 times \$1 size), postpaid \$3.15.





PROTECT YOUR BIRDS

Increase Your Profits



Conkeys Y-O AND REMEDIES WILL HELP YOU

Raising poultry is pleasant and profitable when "good luck" is with you. "Good luck," however, is not merely a matter of chance, but of being prepared. For more than twenty-five years Conkey has been **The Poultry Doctor**. Take his advice. Install a Conkey Corner of remedies in your poultry-house as insurance against disease, trouble, loss, and disappointment.

Your money refunded if any Conkey remedy does not satisfy. **Conkeys Poultry Book** free if you call at our store, or mailed for 4 cents in stamps.

Conkeys Old Reliable Powder

This famous treatment has been on the market for thirty years, known to poultrymen everywhere as Conkeys Roup Remedy. Many would not try to keep poultry without Conkeys—the Old Reliable. Easily given in the drinking water, letting the birds help themselves. Keep it on hand for use in emergency or put it in drinking founts on cold, rainy days, or when there is a sudden change in weather. In milk doses it acts as a tonic. 25 cts., 50 cts., \$1, and \$2.35; postpaid 30 cts., 55 cts., \$1.05, and \$2.50.



Conkeys Poultry Pills

Formerly Called Conkeys Roup Pills

Administer these pills twice daily; in extreme cases three times a day. 25 cts., 50 cts., and \$1; postpaid 30 cts., 55 cts., and \$1.05.

Conkeys Balmo

A soothing, cooling application for relieving irritation around the swollen eyes and head and in the mouth when treating conditions caused by colds and similar troubles. Pkg. 50 cts., pt. \$1.20, qt. \$2; postpaid 55 cts., \$1.30, and \$2.20.

Conkeys Dia-Tabs

Formerly called Conkeys Diatex

The majority of diarrhea cases in chicks are due to digestive disorders which arise from feeding, chilling, overheating, crowding, insanitation, etc. The use of Conkeys Dia-Tabs—formerly called Conkeys White Diarrhea Remedy, then Conkeys Diatex—in the drinking water will help prevent trouble. Pkgs. 25 cts., 50 cts., and \$1, all postpaid; breeder size (950 tablets) \$3.75, postpaid.



Conkeys Y-O

Vi-tal-izes Your Feed

Conkeys Y-O is a vitamin food containing cod-liver oil and brewers' yeast. It holds the potency of the A, B, and D vitamins so necessary for complete digestion. This product comes in the form of a powder which is free-running and mixes readily with any poultry mash. Only 2 to 3 per cent of this potent vitamin food is required in any mash. Conkeys Y-O in the feed brings more eggs, larger eggs, eggs of greater fertility and hatchability. With chicks, it helps to reduce mortality, prevents leg-weakness (rickets), and makes sturdy, fast-growing chicks with exceptionally well-developed bones. It is also fine for rabbits, foxes, dogs, and cats. Lb. 50 cts., 2 lbs. 90 cts., 5 lbs. \$1.60, drums (25 lbs.) \$5.45; postpaid 60 cts., \$1.05, \$1.80, and \$5.85; 50 lbs. \$9.75, 100 lbs. \$17.50.

Conkeys Nox-i-cide

Conkeys Nox-i-cide has a large variety of uses about premises, and is approved by poultry experts everywhere. Use Conkeys Nox-i-cide for spraying during the "weekly clean-up" as a preventive of disease and a help in keeping down red lice, ticks, blue bugs, etc. Conkeys Nox-i-cide is very effective for washing incubators, brooders, fountains, etc. Pt. 40 cts., qt. 60 cts., 2 qts. 90 cts., gal. \$1.50; postpaid 50 cts., 75 cts., \$1.10, and \$1.85; 5 gals. \$6.75, 10 gals. \$12.75.

Conkeys Nikala Worm Tablets

Easy, Safe, Sure and Dependable

Conkeys Nikala Worm Tablets are effective in controlling round worms and tapeworms in chickens and turkeys.

These Tablets are covered with an air-tight coating which keeps them from dissolving until, when they reach the gizzard, the grit in the gizzard cuts this coating away and the nicotine and kamala is then liberated. Individual treatment of each bird is a simple matter, and it is the safest, surest way of destroying these profit-taking parasites. Chick Size: 40 tablets 50 cts., 90 tablets 90 cts., 500 tablets \$3.50, 1,000 tablets \$6.50; postpaid 55 cts., 95 cts., \$3.60, and \$6.65. Adult Size: 50 tablets 75 cts., 100 tablets \$1.25, 500 tablets \$5.50, 1,000 tablets \$10; postpaid 80 cts., \$1.35, \$5.65, and \$10.25.



Conkeys Poultry Tonic

Unequaled as a laying tonic, molting-powder, chick-conditioner, and poultry-regulator. Not a stimulant—no red pepper. Aids appetite, digestion, and helps your birds get more out of their feed. 1½ lbs. 25 cts., postpaid 30 cts.; 3¼ lbs. 50 cts., postpaid 60 cts.; 7 lbs. \$1, postpaid \$1.20; 12 lbs. \$1.60, postpaid \$1.90; 25 lbs. \$3, postpaid \$3.40.

Conkeys Poultry Worm Powder

For large, round worms

Over 90 per cent of market poultry are infested with worms, of which there are many varieties—Round Worms, Gizzard and Cæcal Worms and Flukes or Leaf Worms. Worms cause great loss and flocks should be treated regularly. Pkgs. 25 cts. and 50 cts.; postpaid 30 cts. and 55 cts. Breeder size (5 lbs.) \$2.75, postpaid \$2.95.



Conkeys Scaly Leg Remedy. Destroys parasites causing this troublesome affection. 25 cts.; postpaid 30 cts.

Conkeys Lice Powder. Destroys body lice. They suck the energy from your flock. Dust Conkeys on your hens and in the dust-bath. 30 cts., 65 cts., and \$2.60; postpaid 40 cts., 80 cts., and \$2.85.

Conkeys Head Lice Ointment. Gets the big, murderous fellows that bore through the little chicks' skulls. 25 cts.; postpaid 30 cts.

Conkeys Mite Liquid. Made especially to destroy the spider-like mites that laugh at ordinary lice preparations. Qt. 60 cts., 2 qts. 90 cts., gal. \$1.50; postpaid 70 cts., \$1.10, and \$1.80; 5 gals. \$7. Express extra.



Toxite

NEW DISEASE-CONTROL SPRAY

Kills disease germs which cause coccidiosis, fowl cholera, typhoid, and tuberculosis. Destroys worm-eggs and exterminates lice, red mites, ticks, etc. To control diseases and parasites, simply spray the litter, roosts, and dropping-boards regularly with Toxite. Easy to use. Safe. Inexpensive. Used by poultrymen everywhere. 1-gal. can \$1.50, postpaid \$1.80; 30-gal. drum \$39.

K-R-O KILLS RATS WITHOUT DANGER

K-R-O cannot kill live-stock, pets, or poultry, yet is guaranteed to kill rats and mice every time.

Use K-R-O freely around the poultry-yard without danger to your flocks. Severest experiments have proved it safe. Chickens have been fed a steady diet of food containing 10 per cent K-R-O for as long a period as six weeks without injury. 2-oz. size, 75 cts.; 4-oz. size, \$1.25. K-R-O ready mixed, 22-oz. size, \$1, postpaid.

Lee's Germozone

20-tablet pkg. 25 cts., 75-tablet pkg. 75 cts., 200-tablet pkg. \$1.50; postpaid 30 cts., 85 cts., and \$1.60.

Iodine Suspensoid Merck

USED TO PREVENT AND CONTROL COCCIDIOSIS

The only known material which can be used in a practical and economic way to destroy coccidial oöcysts, the eggs of the parasite which causes coccidiosis. Coccidiosis is one of the most serious and widely spread diseases of poultry, and usually makes its appearance in chicks about three weeks of age, and from then on until the age of three months causes a very high death-rate. ½-lb. bottle \$2.10, ppd. \$2.20; 1-lb. bottle \$3.95, ppd. \$4.10.

Iodine Vermicide Merck

Kills worms the approved way

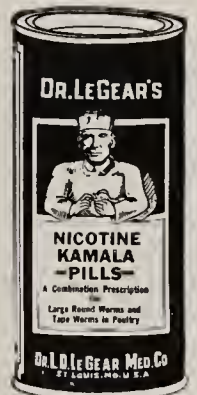
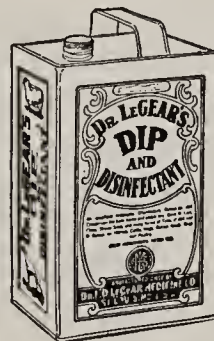
For internal use and is sold only in a concentrated form. It must be diluted with water before using. One gallon of diluted material is sufficient to treat about 125 adult birds. Unlike other worm remedies, Iodine Vermicide will not throw birds off egg-production, but will, if properly used, increase it materially. Some of the official state egg-laying contests use the Vermicide on all the birds entered, with excellent results. ½-lb. bottle \$2.05, postpaid \$2.10; 1-lb. bottle \$3.70, postpaid \$3.85. Dosing Appliance, chick and poultry size 35 cts.; adult turkey size \$1.

Lee's Gizzard Capsules

For round worms, tapeworms, pinworms in chickens, turkeys, etc. Chick Size: 50-capsule pkg. 50 cts., 100-capsule pkg. 90 cts., postpaid. Adult Size: 50-capsule pkg. \$1, 100-capsule pkg. \$1.75, 250-capsule pkg. \$4, 500-capsule pkg. \$7, postpaid.



Dr. L. D. LeGear,
V. S.



Dr. LeGear's Prescriptions

Dr. L. D. LeGear, V. S. Graduate Ontario Veterinary College, 1892. Forty-one years' veterinary practice. Eminent authority on diseases of poultry and stock. Nationally known poultry breeder. Noted author and lecturer. Hear Dr. LeGear lecture on poultry and live-stock. Read Dr. LeGear's articles in newspapers and farm journals. Hear his talks over the radio.

Dr. LeGear's Poultry Prescription—Mineralized. An Iron and Nux Vomica Tonic. This wonderful tonic contains mineral and vegetable ingredients, scientifically compounded to produce an efficient tonic, appetizer, conditioner, and regulator. Furnishes essential elements for strong, healthy growth; builds up vitality; gives maximum egg-production; quickens moult. 25 cts., 50 cts., and \$1; postpaid 30 cts., 60 cts., and \$1.15; 25-lb. pail \$3, postpaid \$3.35.

Dr. LeGear's Poultry Worm Powder. Flock treatment for large round worms in growing chicks, laying hens, and turkeys; in fact, for use in mash feed for the whole flock. 4-lb. pkg. \$1, postpaid \$1.15.

Dr. LeGear's Dip and Disinfectant. Antiseptic disinfectant, germicide, and deodorant. Use regularly to keep poultry-houses, incubators, brooders, hovers, runs, roosts, drop-boards, etc., sanitary and free from lice and mites. An ideal disinfectant for home use. Results guaranteed or money refunded. Qt. 65 cts., ½ gal. \$1, gal. \$1.75; postpaid 80 cts., \$1.20, and \$2.05.

Dr. LeGear's Nicotine-Kamala Pills, Adult Size. For individual treatment. Gets the tapeworms and round worms. 50 tablets \$1; 100 tablets \$1.75, postpaid.

Dr. LeGear's Nicotine-Kamala Pills, Chick Size. For birds weighing less than three pounds, use this size pill. The pills must be given whole. 45 pills 50 cts., 110 pills \$1, 500 pills \$3.50, ppd.

Dr. LeGear's Chick Tablets. An intestinal astringent. Helps baby chicks to get the right start. When dissolved in the drinking-water it has a mild, antiseptic effect on the water which is very beneficial to all baby chicks as an intestinal astringent. 80 tablets 50 cts., postpaid 55 cts.

Dr. LeGear's Lice Powder. Quick and effective in getting rid of lice and mites on poultry or in nests. Kills them as if by magic. 14-oz. can 25 cts., postpaid 35 cts.

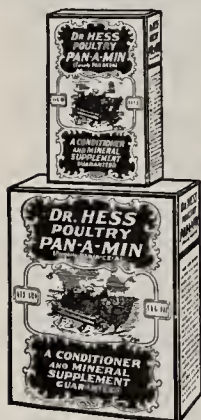
Other Dr. LeGear Preparations

There are many other Dr. LeGear Prescriptions. All are sold on a guarantee of satisfaction or money refunded.

Lippincott's Internal and External Poultry Medicine

Formerly Lippincott's One-Night Roup Cure

Lippincott's Poultry Medicine has never failed to give quick results when used in the proper way and the birds properly housed. 25 cts., 50 cts., and \$1 per bottle; postpaid, 35 cts., 55 cts., and \$1.05.



Dr. Hess Poultry Pan-A-Min

Pan-a-min has been known to poultry-raisers for more than 30 years as Dr. Hess Poultry Pan-a-ce-a.

It is now a greatly improved product. More minerals have been added. It contains new medicinal ingredients, and other active ingredients in different proportions.

Pan-a-min is of high value to moulting hens, in egg production, in reducing chick mortality, in bone and feather growth and in maintaining health.

It does not take the place of feed and no feed can take the place of Pan-a-min. The cost is less than a penny per hen per month.

	Each	Postpaid		Each	Postpaid
1½-lb. pkg.....	\$0 25	\$0 35	15-lb. pkg.....	\$1 75	\$2 05
3-lb. pkg.....	45	60	25-lb. pkg.....	2 50	2 90
7-lb. pkg.....	85	1 05	100-lb. drum....	8 50	

Dr. Hess Poultry Ver-Mi-Trol

For Worms in Poultry

Dr. Hess Poultry Ver-mi-trol is a flock treatment. No individual handling of birds is necessary. It is simply given with the feed in two 10-day courses, three weeks apart, with Dr. Hess Poultry Pan-a-min fed regularly.

It is not drastic, does not throw hens or pullets off production and does not interfere with growth and development of young birds. It is palatable; all birds eat it readily.

As a preventive measure, to avoid worm-infestation, a twice-a-year flock treatment, early summer and late fall, is strongly recommended.

	Each	Postpaid		Each	Postpaid
1½-lb. pkg.....	\$0 45	\$0 55	10-lb. pkg.....	\$2 25	\$2 50
4-lb. pkg.....	1 00	1 15	25-lb. pkg.....	5 00	5 40

Dr. Hess Poultry Tablets

(Formerly Roup Tablets)

For the treatment and prevention of roup, diphtheria, and all catarrhal diseases of fowls. 100-tablet pkg. 50 cts., 225-tablet pkg. \$1, postpaid.

Barnes Emulsion



A scientifically tested vitamin-containing product which can be fed with safety to domestic animals and poultry. It is not poisonous; contains no corrosive acids; is not a stimulant. If your chickens are backward in growth and development, have pale faces and shanks, and stand around droopy, with eyes closed, and if there is a steady and comparatively high mortality in your flock; if some of your birds "go light," then die; or if they are affected with brownish diarrhea, the cause is likely to be from intestinal worm-infestation.

Other effects of worm-infestation include: irregularity in egg-laying, going lame, or developing "staggers," and particularly a condition of low vitality so they easily catch colds, sneeze, have watery eyes, canker, roup, and chicken-pox.

Obtain a can and prove to yourself its merit and effectiveness. Qt. \$1, postpaid \$1.15; gal. \$3, postpaid \$3.30; 5-gal. keg \$12.50. Ask for 32-page booklet "Common Sense vs. Worms."



THE ORIGINAL AND GENUINE CARBOLINEUM

APPLIED ONLY ONCE A YEAR IN POULTRY-HOUSES
KILLS MITES AND BLUE BUGS OR MONEY REFUNDED
Standard Insecticide and Wood-Preserver Since 1876

Avenarius Carbolineum will not only kill all vermin by direct contact, but, if sprayed or brushed, it will penetrate all cracks and crevices and reach the mites at close quarters and effectually stop their propagation.

Guarantee. We guarantee that one thorough application of Avenarius Carbolineum, either by brush or sprayer, to the interior walls, dropping-boards, roosts, etc., of buildings, after a previous cleaning, and no matter whether they are of wood, tar paper, or plaster, will exterminate mites in same for a whole year, or purchase money will be refunded.



PENNSYLVANIA STATE COLLEGE, DEPARTMENT OF POULTRY HUSBANDRY, PROF. H. C. KNANDEL, State College, Pa.: We have been using Carbolineum with very good success and you can rest assured that when we are in need of a good mite destroyer you will receive our order.

PRICES

1-gal. can \$1.50, postpaid \$1.80. 5-gal. can \$7, 10-gal. drum \$13, f.o.b. Pittsburgh. 35-gal. steel barrel \$38.50, 55-gal. steel barrel \$57.75, shipped from factory, freight prepaid.

Kill
Disease
Germs with



Write for folder
"Sterilac on
Poultry Farm"

DISINFECTANT—GERMICIDE—DEODORANT

Use Sterilac in the drinking water to prevent roup and colds. Tests made on the typhoid bacillus show Sterilac to be forty-five times more powerful than carbolic acid in its power to destroy disease-producing germs—yet safe to use—superior to sodium hypochlorite and coal-tar disinfectants for poultry. Recommended for use in drinking water.

Sterilac is economical to use and holds its strength in hot or cold weather. Fresh solutions can be made as required. Being in powder form it does not freeze. Cleanliness and sanitation are the only foundation upon which a successful poultry business can be built.

Two teaspoonfuls of Sterilac to one gallon of water instantly prepares a solution ready for use which complies with Department of Agriculture requirements for chlorine disinfectants. Complete directions on package. 2-oz. bottle \$1, 8-oz. bottle \$2.50, 16-oz. bottle \$4.50, 5-lb. pkg. \$18; postpaid \$1.10, \$2.60, \$4.65 and \$18.25.

Dr. Hess Chick Tablets

Effective for diarrheal diseases of both baby chicks and grown fowls. A bowel astringent given in drinking water. Once the tablets are in solution they remain so indefinitely. The water is thoroughly medicated and is all good until used. 25 cts., 50 cts., and \$1; postpaid, 30 cts., 55 cts., and \$1.05.

Remo Rat Exterminator

Positively will not harm domestic animals and poultry

A highly efficient Rat Exterminator in paste form. It attracts rats to the bait, making it more effective. Get rid of these filthy pests with Remo. 25 cts., 50 cts., and \$1 packages. Any size package sent by Parcel Post for 10 cts. additional.



Chic-Tone

FOR POULTRY
REG. U.S. PAT. OFF.
IN DRINKING WATER

Chic-Tone in the drinking water increases the appetite and builds up vitality. It is both an intestinal antiseptic and general tonic. Protects against many intestinal disorders—helps to keep your birds healthy, aiding them to get maximum value from the feed consumed. Poultry raisers everywhere are finding Chic-Tone in the drinking water a safeguard and insurance against low vitality. Qt. \$1, postpaid \$1.15; gal. \$3.50, postpaid \$3.80; 5 gals. \$13.75.

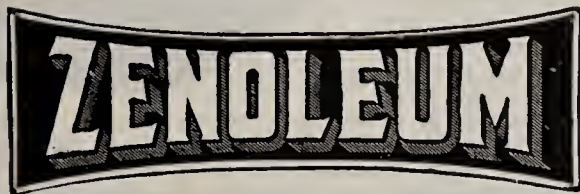


When poultry raisers pour Chic-Tone in the drinking water and spray Chic-Tone Inhalant in the air, their death-losses from colds and respiratory ills are kept way down, and that applies to birds of all ages from baby chicks to old hens. In some instances the abrupt cessation of epidemics—severe epidemics of infectious bronchitis—has seemed to the user little short of miraculous. Powerful, germ-killing gases and healing oils in Chic-Tone Inhalant are inhaled by birds, opening up the nostrils, causing discharge of mucus, healing irritated membranes. Do not dilute. Spray right into faces of birds. Qt. \$1, postpaid \$1.15; gal. \$3.50, postpaid \$3.80; 5 gals. \$13.75.



McKeon's "Liquid Sulpho"

Health-insurance for your entire flock worth 100 times its cost. Put in drinking water every day—3 drops to the gallon. Prevents Coccidiosis, Roup, Large Round Worms, Chicken-pox and other intestinal disorders in poultry, also rabbits. Use 6 to 12 drops where disease is present. Fool-proof, economical. 3-oz. bottle 50 cts. postpaid; 8-oz. bottle, enough to treat over 1,200 gallons drinking water, \$1 postpaid.



A single quart is all that is necessary to rid 100 hens of lice, mites, and germ filth; it cures and prevents all ordinary poultry ailments and diseases—contains nothing that is injurious—insures cleanliness—and safeguards your poultry's health and your own profits.

8-oz. can, making 6 gals. of fluid.....	\$0 35	Postpaid \$0 45
Qt. can, making 25 gals. of fluid.....	75	90
1/2-gal. can, making 50 gals. of fluid.....	1 25	1 45
1-gal. can, making 100 gals. of fluid.....	2 00	2 30
5-gal. can, making 500 gals. of fluid.....	8 00	

LEE'S LIQUID LICE-KILLER

1 quart.....	\$0 60	Postpaid \$0 75
2 quarts.....	90	1 10
1 gallon.....	1 50	1 80

DR. HESS' INSTANT LOUSE-KILLER

1-lb. pkg.....	25	35
2 1/2-lb. pkg.....	50	65



Powder or Liquid
For prevention or treatment of
ROUP CANKER
CHICKEN-POX
WHITE DIARRHEA
BRONCHITIS COLDS

Standard for Over Twenty Years

Used and recommended by poultry authorities and breeders. A powerful germ-killer—no poison—no acid—no oil.

Clean

Colorless

Used in drinking water, prevents spread of disease. Cleanses infected spots—kills the germs and cannot harm baby chicks.

Ideal disinfectant for brooders and incubators. Kills odors and leaves no smell of itself.

THE WORLD'S BEST POULTRY DISINFECTANT

INEXPENSIVE TO USE. B-K is concentrated—a little goes a long way.

Powder	New Low Prices	Postpaid
Small (makes 1 gal.)	\$0 75	\$0 85
Large (makes 3 gals.)	1 50	1 60
Liquid	Postpaid	Not Postpaid
4-oz. bottle....	\$0 30	\$0 40
10-oz. bottle....	50	60
1-qt. bottle....	90	1 05
		1-gal. bottle.....\$2 00
		5-gal. jug.....8 50

Write for Bulletin 213 on poultry

"Black Leaf" Worm Powder

CONTROLS POULTRY ROUND WORM

An odorless, tasteless, dry compound containing nicotine that remains insoluble until it reaches the intestines where large round worm infestation occurs. There the nicotine is released immediately, and dead round worms begin to be expelled a few hours later, continuing for about 24 to 36 hours. This product furnishes "one-shot" control of round worm without handling the birds and without the disturbance caused by individual handling.

"Black Leaf" Worm Powder is easily fed in mash. The dose for 100 birds is 4 ounces, mixed in a gallon of mash, fed the first thing in the morning. 4-oz. pkg. \$1, 1 1/2-lb. pkg. \$4, 3-lb. pkg. \$7.50.

"Black Leaf" Worm Pellets. Produced from "Black Leaf" Worm Powder. Highly efficient. \$1 per 100, \$4 for 500, \$7.50 per 1,000.

Gold-Leaf Tobacco Powder

CONTROLS POULTRY ROUND WORMS

Manufactured especially for this poultry purpose. So certain is its action that it may well be considered a specific for the control of this trouble. The treatment is exceedingly inexpensive.

Mix two pounds of Gold-Leaf Tobacco Powder with 100 pounds of dry mash. 2-lb. bag 25 cts., postpaid 35 cts.; 10-lb. package 75 cts., postpaid 95 cts.; carton (6 10-lb. packages) \$4.

F. and E. Chick Pick Remedy

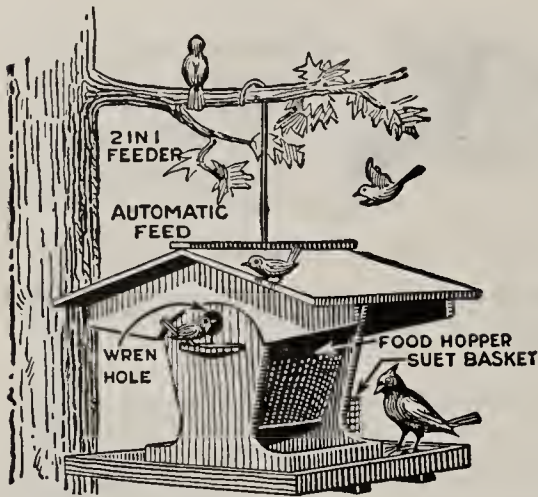
TO STOP TOE, WING, AND BODY PICKING OF CHICKS

This is not a medicine, but a habit-breaking ointment that will quickly overcome all cannibalism. Very effective and harmless. 4-oz. pkg. 40 cts., 8-oz. pkg. 60 cts., 16-oz. pkg. \$1, postpaid.

Get More Eggs at the Time of High Prices

LIGHT THE LAYING-HOUSE
WITH THE NEVER-FAIL TIME SWITCH

It has been conclusively proved that the electric-lighted hen-house pays big dividends. See page 173.



Two-in-One Hanging Feeder

In the winter-time this serves as a Feeder for the birds and a hanging Wren-House in the summer. It invites birds to your yard which you ordinarily would not have the opportunity of seeing. If the top is removed it is possible to see the tiny young Wrens. Stained brown. Size 12 inches wide, 10 inches high, and 11 inches long. \$2.50, postpaid.

Bird Feed

A balanced ration of seeds for every species of Wild Song Birds. 10 lbs. 40c., ppd. 65c.

Bishop Rustic Bird-Houses

Of all the additions that may be made to the garden or ground, there are none that are more pleasant, entertaining, or useful than birds. The erecting of Bird-Houses is the most practical way of attracting them.

Naturally, the most successful Bird-Houses are those which most closely resemble the birds' original nesting-places. This fact accounts for the singular success of Bishop Rustic Bird-Houses.



No. 1



No. 4



No. 6

No. 1. Wren-House. A very successful rustic Wren-House, sturdily built of winter cut hemlock and southern cypress. It is intended to be hung from the branch of a tree. The roof may be opened for cleaning. \$1.85.

No. 2. Wren-House. A rustic Wren-House designed to be fastened against the trunk of a tree. An ornamental twig is attached to the front. \$2.10.

No. 3. Robin Shelter. Sheltered shelf for robins, phoebes, and other birds that will not nest in a closed house. \$1.85.

No. 4. Bluebird House. Very sturdy and practical House for bluebirds or tree swallows. This House is intended to be fastened against the trunk of a tree. \$2.50.

No. 6. Wren-House. A House of simple yet pleasing design. \$1.50.

No. 7. Tree-Swallow-House. This House is also suitable for bluebirds. It is especially designed to be mounted upon the top of a pole. \$2.10.

Any of these Houses sent postpaid for 25 cts. additional

Rutland Egg Preserver



Prepared from a high grade of water glass manufactured especially for the purpose.

There are many so-called egg preservers on the market; some are inferior water glass; some are not water glass at all. Water glass, not especially prepared for preserving eggs, may contain too much alkali; water glass can sometimes be bought in bulk by the quart, but this is not a safe way to purchase it as one knows nothing about the strength of the solution. This is a most important point in the preserving of eggs. The cost of eggs is such that it does not pay to take chances.

The prudent house-wife uses only an egg preserver prepared especially from a high grade of water glass—Rutland Egg Preserver.

A one-pint can will be sufficient for preserving about eight dozen eggs; the contents of a one-quart can will preserve from fifteen to twenty dozen.

		Postpaid
Pint Can.....	\$0 15	\$0 30
Quart Can.....	25	45
Gallon Can.....	85	1 15

Baby Chicks

Our Chicks are from culled and blood-tested flocks of bred-to-lay strains.

For many years we have made a specialty of furnishing Day-Old Chicks of all leading breeds. Beginning early in March, we will receive from near-by hatcheries from one to three shipments per week. To secure the breeds desired we suggest that orders be placed at least a week or ten days before the Chicks are wanted. Prices quoted on request.

O. K. Sanitary Poultry Litter

THE IDEAL PRACTICAL LITTER THAT COSTS SOME POULTRYMEN NOTHING

This wonderful peat moss litter pays the poultry keeper in two ways—besides saving labor and trouble and insuring most healthful sanitary conditions.

First, when once the proper amount is put in your poultry-house, you are through for the season. O. K. Sanitary Litter does not have to be taken out like hay, straw, or other material that soon becomes filthy and dangerous. O. K. Litter absorbs the moisture of the droppings, coats over the solids, remains clean and effective for months, because it is light and very porous. Prevents odors, avoids dampness.

Second, O. K. Sanitary Poultry Litter is most economical. Its first cost by the bale is only a trifle more than hay, but as it lasts for months, it is far cheaper in the end. And all the time it is saving in the labor of removing and replacing. But above that there is another saving—a big profit to the user—and that is the worth of the used litter as a most valuable fertilizer.

Some poultrymen sell the "seasoned" litter to gardeners, florists, and others for more than the original litter cost. Others realize what this powerful nitrogen-filled litter is worth and use it themselves. Either way it has paid a big profit.

Use it for your laying-houses and for brooders in the spring. Put it on the dropping-boards.

Bales weigh about 175 pounds and cover about 80 square feet, 3 inches deep. Price, \$2.75 per bale; 5-bale lots, \$2.65 per bale.

Small sample bale. Contains nearly 2 bushels of loose material (enough for the ordinary brooder) \$1.25, postpaid \$1.50.





McKeon's

"Sulpho Dip"
TRADE MARK REG'D

Nature's original treatment for mange, eczema, and all skin diseases on large and small hair-bearing or fur-bearing animals. Dilute in 20 parts water. Apply direct to affected area. Gives Sulphur baths like those at Mt. Clements. (As good for yourself as for your dog.) Ask your veterinarian or physician. 8-oz. bottle \$1 postpaid.

Pulvex

The Guaranteed Flea Powder

One application of Pulvex—the odorless and non-poisonous Flea Powder—will kill every louse, flea, tick, or mite on any animal or bird. It will also prevent reinfestation of fleas for many days. Pulvex is safe to use on dogs, cats, or birds, and is guaranteed to satisfy. 2-oz. pkg. 50 cts., postpaid 55 cts.; 12-oz. pkg. \$1.25, postpaid \$1.35.



Brown's

Supercedar Kennel Bedding

Made from genuine *Juniperus virginiana*, the red heart of which contains the fragrant oil of cedar. It is scientifically airdried to retain its full oil-content. The pungent aroma, so pleasing to you and your dog, actually drives fleas and other vermin away. It not only provides a velvety cushion for a dog, but imparts a gloss to his coat, keeps his hair live, clean, and oily, and keeps the kennel pleasant and wholesome. A pillow filled with it makes an ideal bed for cats and other animal pets. 5-lb. bag 45 cts., postpaid 60 cts.; 50-lb. bag \$2.25.

CAT FOODS AND MEDICINES

Spratt's Tablets for Constipation.....	\$0 60
Spratt's Purgative Tablets.....	60
Spratt's Special Tablets. A diuretic and stimulant.....	1 00
Spratt's Tonic and Condition Tablets.....	60
Spratt's Capsules for Ascarids and Large, Round Worms in Cats.....	60
Spratt's Food with Fish and Milk. A complete food for cats.	30
Kit-E-Ration. A balanced ration ready to serve. 1-lb. can 15 cts., 2 for.....	25
Bennett's Crumbs. A food for cats.....	20
Catnip Mouse. Makes kittens playful.....	10
Cat Culture. A complete treatise on the care of cats.....	15

Chamberlain's Perfect Bird Food

WITH VEGETABLE AND EGG FLAKES

Birds properly fed do not need a song restorer.

Give your bird a treat and let him be the judge.

Contains a large variety of thoroughly cleaned, choice, sound and sweet imported and domestic seeds, each in just the correct proportions.

Every seed and every article has its own particular purpose and duty to perform, such as enhancing the brilliancy of the plumage, improving the song, keeping the bird healthy, bright and cheerful.

Always fresh—sold only in damp-proof cans. 11-oz. can 25 cts., postpaid 30 cts.; 55-oz. can \$1, postpaid \$1.15.



Bird Foods and Remedies

Spratt's Egg-Flake and Fruit Canary Mixture. 15-oz. pkg.....	\$0 25	Postpaid \$0 30
Spratt's Cod-Liver Oil Cage-Bird and Nestling Food. For feeding young birds and old birds in the moulting season. A tonic and flesh and bone-maker. Unequaled as an aid to feather-growth. 4-oz. pkg.....	15	20
Spratt's Song Restorer. For birds who have lost voice from the effect of cold or moulting. Also for breeding birds and their young. 4-oz. pkg.....	25	30
Spratt's Sing-Song. For health and song.....	10	15
Spratt's Tonic for Birds. 1-oz. bottle.....	10	15
Spratt's Parrot Mixture. A mixed food for parrots. 10-oz. pkg.....	20	25
Spratt's Pollicrackers. Specially prepared and adapted for parrots of all kinds. 12-oz. pkg....	20	25
Bird Manna. Keeps cage birds in constant song, improves their plumage, and prevents disease....	15	20
Silver Brand Bird Gravel. 30-oz. pkg.....	15	20
Chamberlain's Bird Gravel, with Charcoal. 24-oz. pkg.....	15	20
Burnett's Bird Nesting.....	10	15
Burnett's Canary Louse Powder. 1-oz. pkg.....	20	25
Burnett's Unexcelled Bird Food. A song restorer. 10-oz. pkg.....	25	30
Burnett's Bird-Wash. For use on canary birds and parrots. Non-poisonous. 9-oz. pkg.....	25	30
Burnett's Celebrated Tonic for Birds. For loss of song, weakness, or moulting, asthma or hard breathing and colds. 3-oz. pkg.....	35	40
Burnett's Polly Nut Mixture. A combination of seeds, nuts, and grains for Parrots. 9-oz. pkg. ..	25	30
Magic Song Restorer and General Health Food. For all seed-eating birds. 6-oz. pkg.....	25	30
Dr. Gunnings Universal Bird Tonic. For loss of song, weakness, asthma and all other diseases of cage-birds.....	35	40
Justrite Rol-Er-Ka-Nar-E Bird Seed. 1-lb. pkg....	25	35
Justrite Imported Bird Seed. 1-lb. pkg.....	25	35
Justrite Love Bird Seed. 1-lb. pkg.....	25	35
Justrite Parrot Food and Polly Crackers. 20-oz. pkg.	25	35
Justrite Song Restorer.....	25	35
Justrite Vitamine Health Food. A body-builder...	25	35
Justrite Feather-pulling Food. For all cage-birds..	25	35
Justrite Bird Jelly. For hard breathing, catarrh, and colds.....	25	35
Justrite Bird Salve. For sore feet, scaly or swollen legs.....	15	20
Justrite Bird Tonic.....	25	30
Justrite Bird Bitters.....	25	30
Justrite Moulting Food.....	25	35
Justrite Color and Pepper Food.....	25	30
Recleaned Spanish Canary Seed, in bulk. The genuine Spanish canary seed. Keeps canaries in full song. Lb. 15 cts., 8 lbs. for.....	1 00	1 20
Large Japanese Bird Rape Seed, in bulk. Lb. 15 cts., 8 lbs. for.....	1 00	1 20
Scott's Canary Seed Mixture, in bulk. Composed of best recleaned Spanish Canary Seed and Japanese Rape Seed. Lb. 15 cts., 8 lbs. for.....	1 00	1 20

Fish Foods

Burnett's Natural Fish Food. Pkg. 15 cts.	
Burnett's Daphnien Fish Food. Pkg. 25 cts.	
Burnett's Shrimp Fish Food. Pkg. 15 cts.	
Burnett's Tropical Fish Food. Pkg. 25 cts.	
Burnett's Turtle Food. Pkg. 20 cts.	
Burnett's Aquarium Cement. Pkg. 25 cts.	
Justrite Natural Fish Food. Can 10 cts.	
Justrite Tropical Fish Food. Can 10 cts.	
Justrite Imported Pure Shrimp. Can 10 cts.	
Spratt's Wafer Fish Food. Large carton 10 cts.	
Spratt's Tropical Fish Food. 15 cts. each, 2 for 25 cts.	

Spratt's Dog Medicines



	Postpaid
Tablets for Constipation	\$0 60
Sulfur Tablets. For heated blood, etc.	60
Cough Tablets. Generally effect a quick cure.	60
Astringent Tablets for Dogs. To relieve diarrhea	60
Special Tablets. A diuretic and stimulant.	1 00
Ear Canker Ointment. For both internal and external forms of this disease	75
Eye Lotion Tablets. A safe and efficient remedy	60
Flea Powder. For dogs, cats and other animals	30
Mange Medicine	75
Purgative Tablets. Perfectly safe and effective	60
Tonic and Condition Tablets. To build up after sickness and to put in bench-show form, etc.	60
Capsules for Ascarids and Large, Round Worms in Dogs	60
Capsules for Ascarids and Large, Round Worms in Puppies	60
Dry Cleaning Powder	35
Dog Soap (White). For fleas, lice, etc. Entirely free from poison. Nicely perfumed and produces a fine lather	25

GLOVER'S IMPERIAL DOG MEDICINES

For Internal Use

	Postpaid
Puppy Capsules. To expel large round worms and hookworms from puppies, kittens, and fox pups	\$0 65
Round Worm Vermifuge. For puppies, dogs, foxes, and cats	65
Round Worm Capsules. For puppies, dogs, and foxes	65
Tapeworm Capsules. For puppies, dogs, foxes, and cats	65
Tetrachlorethylene Capsules. For hookworms and round worms in puppies, dogs, foxes, and cats	65
Condition Pills. Stimulant, digestive, appetizer, tonic	65
Iron Tonic. Tonic, appetizer, and general stimulant	65
Digestive Pills. Soothing to the stomach and intestines. Stimulate digestion	65
Laxative Pills. For sluggish bowels and acute constipation	65
Diarrhea Mixture. To check looseness of the bowels from simple inflammations and improper feeding	65
Compound Sulphur Tablets. Act upon the kidneys and intestines	65
Nerve Sedative. For fits and convulsions	65
Fever Reducer and Stimulant. For dogs and cats	1 00
Expectorant Mixture. To loosen the cough and quiet the spasms	65

For External Use

Mange Medicine for Sarcopitic Mange. Local application for mange and chronic eczema of dogs	75
Kennel and Flea Soap. Kills fleas and lice. Promotes the healing of sores	25
Medicated Soap. A cleansing bath soap for house dogs	30
Flea and Insect Powder. Contains 100 per cent pyrethrum flowers; no filler added. Acts quickly	50
Canker Wash. For the ears of dogs, cats, and rabbits	65
Eye Lotion and Eye Wash Powder (Combination Package)	65
Sore-Foot Medicine. Prepared specially for hunting dogs	65
Antiseptic Mouth-Wash. For all animals	65
Crystal Antiseptic Liniment. For strains and rheumatic pains of man or animals	65
Ointment for the Skin. For mange of cats and other animals. Promotes healing and relieves itching of inflamed skin and sores on man and all animals	65

Free Dog Book for Distribution

Dri-Bath. Dry cleans dogs, cats, or any other animal perfectly	50
Bee Brand Shampoo. Kills fleas on dogs and cats	30
Bee Brand Flea Powder. Safe and non-irritating	25
Delcreo. For treating fever in pups and dogs	1 50

Sergeant's DOG MEDICINES

	Postpaid
Special Medicine. For treating fever in pups and dogs	\$1 20
Mange Medicine. For treating skin diseases	65
Condition Pills. A tonic and alterative for pups and dogs	60
Sure-Shot Liquid. For pups and older dogs. For owners who prefer a liquid vermifuge for round worms	60
Expectorant Medicine. For coughs and colds	60
Puppy Capsules. For round and hookworms	60
Eye-Wash. For treating eye trouble in pups and dogs	60
Sure-Shot Capsules. For round worms, pinworms and hookworms in older pups; also for large and older dogs	60
Tapeworm Medicine. For tapeworms in pups and dogs	60
Arsenic and Iron Pills. (Compound.) A blood purifier. For treating blood and skin diseases	60
Canker Wash. For treating internal and external ear canker	60
Mouth Wash. For treating sore mouth and black tongue	60
Pepsin Tablets. (Compound.) For treating indigestion, vomiting, and colic in pups and dogs	60
Intestinal Astringent. For treating diarrhea and dysentery in pups and dogs	60
Diuretic Pills. An aid in treating rheumatism and lumbago in pups and dogs. Stimulates urinary action	60
Laxative Capsules. For treating constipation	60
Carbolic Tar Soap. A splendid all-purpose soap	25
Skip-Flea Soap. A wonderful bath soap for pups and dogs. Will kill fleas, lice, and certain other vermin	25
Skip-Flea Powder. For fleas and lice on dogs and cats	25
Nerve Sedative Medicine. For running, barking fits	1 20
Shampoo Soap. For scalp and hair, for human use	25

Sergeant's Dog Book Free. Ask for it.



Dr. Daniel's Medicines for Dogs and Cats



Danilax. A liquid, tasteless laxative	\$0 35
Danivom. Anti-vomit tablets for dog or cat	50
H. B. O. Liquid for hair-balls in cats	65
V. M. Capsules. Vitamins for dogs and cats	50
Worm Specials:	
Liquid Worm Drops. For cats and toy dogs	50
Worm Drop Capsules. For cats, toy and small pups	65
Puppy Vermifuge Capsules. For worms in pups	65
Worm Expeller Capsules. For large dogs	65
Loose Catnip. All leaves and blossoms	15
Catnip Ball. Exerciser for cat	15
Acobal Wafers. For distemper—colds in cats and puppies	50
Condition Tablets. Restorative for dogs	65
Nervide Tablets. Nervide. For fits and convulsions	50
Dispo Tablets. For distemper, colds, and fevers	65
Dog and Flea Soap	25
Katonic. A great tonic for cat or kitten	25
Laxative Tablets. For dogs or cats	50
Tonic Pills. A condition pill for cats, toy dogs, and pups	65

Dr. LeGear's Dog Prescriptions

Cod-liver Oil Concentrate Tablets. Prevents rickets and promotes proper bone-development. Excellent tonic for convalescent animals. 40 tablets 50 cts., 100 tablets \$1.	
Round- and Hookworm Capsules for Small Dogs. 18 capsules 50 cts.	
Round- and Hookworm Capsules for Medium-Large Dogs. 12 capsules 50 cts.	
Tapeworm Tablets. 15 tablets 50 cts.	
Mange Prescription (Sarcopitic). 6 oz. 50 cts.	
Tonic Condition Tablets. Stimulant to appetite and conditioner. 30 tablets 50 cts.	
Kennel Disinfectant. 6 oz. 50 cts.	
Flea and Lice Powder. 1 1/2 oz. 25 cts.	
Flea and Shampoo Soap. 3 3/4 oz. 25 cts.	
Laxative Tablets. 35 tablets 50 cts.	
Pepsin Compound Tablets. Aid to digestion. 30 tablets 50 cts.	
Special Tablets. For reducing fever. 30 tablets \$1.	
Nerve Sedative Tablets. 20 tablets \$1.	
Eye Lotion. 2 oz. 50 cts.	



Milk-Bone Dog and Puppy Biscuits

A FOOD THAT ALL DOGS LOVE

Milk-Bone is made to meet the particular physical needs of dogs; it is made to suit the peculiar digestive organism of dogs. Milk-Bone not only provides the necessary energy-producing material, but it also supplies the materials for tissue repair.

Milk-Bone keeps a dog in sound health, with good digestion, sweet breath, and regular habits.

Dogs fed on Milk-Bone enjoy every minute of life because they have the buoyancy and pep that go with proper nourishment and perfect health.

Milk-Bone is made to give a dog the sustenance he needs, the food he favors, without burdening his digestive system.



Puppy Biscuit, 26-oz. carton....	Each \$0 30	Postpaid \$0 40	3 for \$0 85	Postpaid \$1 05
Dog Biscuit, 29-oz. carton.....	30	40	85	1 05

Vitamont Dog Food

A concentrated food for dogs, cats, and foxes. It is a complete balanced food, ready to serve. 1-lb. can 15 cts.; 2 for 25 cts., postpaid 40 cts.; case (48 1-lb. cans) \$5.40.

Doggie Dinner

A properly balanced food for dogs or cats. Contains all the elements which are essential to the growth and health of animals. 1-lb. can 10 cts., 3 for 27 cts., postpaid 40 cts.; doz. cans \$1.05, case (24 cans) \$2.

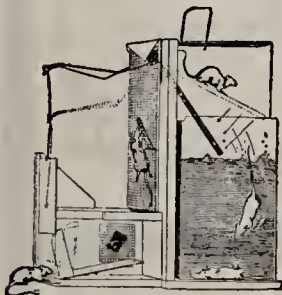
Evr Redy Dog Food

Contains lean red meat, whole wheat, other cereals, vegetables, etc.—in all, ten different ingredients, each contributing its part to make a wholesome, pure, palatable food abundantly supplied with all the vitamins and elements which are as essential to a dog's welfare as to our own.

Evr Redy Dog Food is government inspected. Use it with confidence. Feed it every day. No other food is needed because it is a balanced ration. 1-lb. can 10 cts., 3 for 23 cts., case (48 cans) \$3.45.

Peerless Rat and Mouse Trap

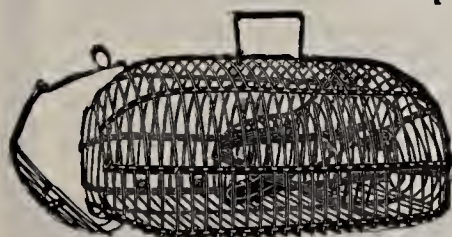
Every Rodent Sets the Trap for Its Follower



The Peerless Always-Set Trap is the scientific means of dealing death to sneaking, wily rats and mice. It is positively automatic in operation, and, barring accidents, cannot get out of order. It leads the animal to certain death, and each one killed sets the Trap for another to follow.

Mouse Trap \$3, postpaid \$3.20.
Rat Trap \$8.50.

Surprise Rat Trap



This Trap is very strongly made, having more stiffening ribs and cross-wires than Traps of similar pattern. Made of No. 17 coppered wire, 16 in. long, 9 in. wide, 7 in. high. 85 cts., postpaid \$1.

"Old Trusty" All Terrier Food

A granulated food of even balance, carefully mixed, not medicated or sweetened. An ideal food for all breeds, particularly terriers and active dogs. May be fed dry or moistened with milk or soup. Vegetables may also be added.

		Postpaid
Large carton.....	\$0 35	\$0 45
5-lb. bag.....	65	80
25-lb. bag.....	2 50	2 90
50-lb. bag.....	4 65	
100-lb. bag.....	8 75	



ROSE'S Dog and Puppy Food (Uncooked)

A rich, highly concentrated food in a raw meal form. Prepare by bringing water to a boil and adding enough meal to make a thick mush which you can hardly stir. Remove from fire, allow to cool, then feed. It may also be made in bread form by adding soda, sour milk, and salt. For puppies, cook more thoroughly by using a double boiler. It can

be fed raw but its food value is higher when cooked, and on account of its richness will purge a dog for a few days.

		Postpaid
5-lb. carton.....	\$0 50	\$0 65
10-lb. bag.....	75	1 00
25-lb. bag.....	1 65	2 05
50-lb. bag.....	2 75	
100-lb. bag.....	5 00	

Rose's Dog and Puppy Food (Cooked)

A cooked, ready-to-feed product. Contains wheat, corn, fresh beef, raw bones, special processed meat, minerals, and other ingredients. It may be fed dry or moistened with water, milk, or soups, as one desires.

		Postpaid
25-lb. bag.....	\$1 75	\$2 15
50-lb. bag.....	3 00	
100-lb. bag.....	5 50	

IMPERIAL DOG FOODS

Imperial Dog Foods supply the essential food-elements that all dogs require. They eliminate the guess-work from feeding and keep your dog healthy and full of pep. All dogs relish Imperial Foods because of their crisp tastiness and enticing flavor, and you will find them both convenient and economical to feed.

Imperial Dog-Ration. (Kibbled.) Primarily a high-quality health-promoting, balanced ration Dog Food designed especially for kennel use to form a major part of the dog's diet. 1 1/4-lb. pkg. 20 cts., postpaid 30 cts.; 5-lb. bag 60 cts., postpaid 75 cts.; 25-lb. bag \$2.15, postpaid \$2.55; 50-lb. bag \$3.75.

Imperial Dog Biscuit. An all-round balanced ration diet for mature dogs. They are "balanced in vitamins" and the nutritional values that keep dogs in vigorous, healthy condition. 5-lb. bag 75 cts., postpaid 90 cts.; 50-lb. bag \$4.50.

Imperial Meat-Ration. A food that eliminates your worries about correct diet—a food composed of 50 per cent pure, cooked fresh meat with cereals, vegetables, grains, and minerals. Absolutely nothing to be added but a little water to mix into a tasty, nourishing mash that your dogs and puppies will relish and thrive on. 1 1/4-lb. pkg. 25 cts., postpaid 35 cts.; 4-lb. bag 60 cts., postpaid 75 cts.; 25-lb. bag \$2.65, postpaid \$3.05; 50-lb. bag \$4.75.

Imperial Biscuits. The ideal Biscuits for small breeds. Small, tasty, and highly nutritious, they are just the right size for the puppies and do not have to be broken or soaked up. 22-oz. pkg. 25 cts., postpaid 35 cts.; 5-lb. bag 75 cts., postpaid 90 cts.; 50-lb. bag \$4.65.



Spratt's Dog Foods

The best you can buy. Your dog gives you his all, asking nothing in return. It is for you to stand by him where feeding is concerned. "Good" isn't good enough when you can get "Spratt's."

SPRATT'S OVAL DOG BISCUITS. A small Meat Fibrine Dog Biscuit of superior quality. A few of these diminutive dog cakes can be carried in the pocket when on a ramble with the dog. Carton 35 cts., postpaid 45 cts.; 5-lb. bag 80 cts., postpaid 95 cts.

SPRATT'S OVALS with Charcoal. Carton 40 cts., postpaid 50 cts.

SPRATT'S FIBO. A unique granulated food. It is very appetizing and highly recommended for shy and dainty feeders, as a change of diet or as a suitable food for any dog at any time. Can be given either dry or soaked. Carton 40 cts., postpaid 50 cts.; 5-lb. bag 90 cts., postpaid \$1.05; 25-lb. bag \$3.45, postpaid \$3.85; 100-lb. bag \$13.

SPRATT'S PUPPY CAKES. A complete and perfect food for puppies from weaning time onwards, and for small breeds as the regular food instead of Spratt's larger Dog Cakes. Carton 40 cts., postpaid 50 cts.; 25-lb. bag \$3.10, postpaid \$3.50; 100-lb. bag \$11.50.

SPRATT'S COD-LIVER-OIL CAKES. A valuable aid to convalescence of sick dogs, for old dogs and for puppies not making due progress. Carton 40 cts., postpaid 50 cts.

SPRATT'S CHALLENGE TERRIER MEAL. An appetizing, granulated food. 5-lb. bag 65 cts., postpaid 80 cts.; 25-lb. bag \$2.75, postpaid \$3.15; 50-lb. bag \$5; 100-lb. bag \$9.50.

SPRATT'S MEAT FIBRINE DOG CAKES. For sixty years the standard dog food, used by the leading breeders and fed at the principal dog shows throughout the world. Carton 35 cts., postpaid 45 cts.; 5 lbs. 75 cts., postpaid 90 cts.; 25-lb. box \$3.10, postpaid \$3.50; 100-lb. box \$11.65.

ORIGINAL
AND
GENUINE

CHAPPEL'S KEN-L-RATION Products

THE DOG FOODS SUPREME

QUALITY
MADE IT
FAMOUS



KEN-L-RATION

The perfectly balanced dog food, is clean, pure and wholesome as the food used on your table. It is composed of fresh cereals and best grade of whole cereals and cod liver oil tested for its vitamin potency. KEN-L-RATION is U.S. Inspected and passed by the Department of Agriculture. This is your absolute guaranty of quality.

Ken-L-Ration		Postpaid
1-lb. can	\$0 10	\$0 20
9 cans for	85	1 10
Case (48 1-lb. cans)	4 40	
7-lb. can	65	
Case (6 7-lb. cans)	3 75	85

Kit-E-RATION

The Ingredients in this cat food contains properties so very essential with the growth and development of the cat or kitten... a well balanced ration containing fresh liver... ready to serve.

Kit-E-Ration		Postpaid
1-lb. can	\$0 15	\$0 25
2 cans for	25	40
Case (48 1-lb. cans)	\$5.65	



Ken-L-Biskit. Small square biscuits... can be fed to dogs of all breeds and ages. KEN-L-BISKIT like KEN-L-RATION contains all the nutritive elements so vital to growth, strength and ability to resist disease. Good for puppies... grown dogs... for old dogs. KEN-L-BISKIT contains fresh, pure, lean meat from animals that have been U. S. Inspected by the Department of Agriculture... whole cereals... egg yolk... first clear wheat flour and other nutritious ingredients.

25-oz. pkg. 25 cts., 3 for	\$0 65	\$0 80
Case (12 25-oz. pkgs.)	2 50	2 85

Kib-L-Biskit, Is made of exactly the same ingredients as Ken-L-Biskit except that it is kibbled, (broken and screened to a uniform small size)... it can be fed dry or crumbly moist to dogs all sizes and kinds

		Postpaid
5-lb. bag	\$0 60	\$0 80
25-lb. bag	2 40	2 80
50-lb. bag	4 25	
100-lb. bag	8 00	



Maro Meat.

A clear meat-and-marrow product too highly concentrated for feeding alone. Designed for large consumers, as a basic meat ration to be mixed with Kib-L-Biskit or Ken-L-Meat. 2½-lb. tin 40 cts., postpaid 55 cts.; case (18 2½-lb. cans) \$6.25.

Hemo-Ration, supplies (in natural organic form) the strength-building, blood-making foods and health essentials needed by breeding stock. Helps in treating cases of rickets, chorea, and anemic dogs. 1-lb. can 15 cts., postpaid 25 cts.; 2 for 25 cts., postpaid 40 cts.; case (48 1-lb. cans) \$5.65.

Pup-E-Ration stands the test—the hardest test of any growing food—the growing of husky, strong-boned, well formed puppies. It builds bone, flesh, muscle, hair—furnishes them strength to resist disease. 1-lb. can 15 cts., postpaid 25 cts.; 2 for 25 cts., postpaid 40 cts.; case (48 1-lb. cans) \$5.65.

Ken-L-Worth, an outstanding biscuit food of quality and contains a large percentage of fresh, lean, raw meat, and the correct amount of fresh green bone... an economical food. 25-lb. bag \$2.10, postpaid \$2.50; 50-lb. bag \$3.75; 100-lb. bag \$7.

NO OTHER DOG FOODS MADE WITH THE SAME VALUABLE INGREDIENTS

FOR DOGS
ALL BREEDS

Perfection Dog Foods

(Marketed for more than 20 years)

FOR PUPPIES
ALL AGES



Whole Biscuits are quartered and more suitable for feeding toy and other small dogs.

Perfection Meat-Cereal

(Cooked, Prepared, Ready to Feed)

It is likely there is more Perfection fed today than any other brand of its kind. It is appetizing and relished by dogs of all breeds and puppies of all ages.

		Postpaid
2 1/2 lbs.	\$0 25	\$0 40
5 lbs.	40	55
10 lbs.	75	1 00
25 lbs.	1 65	2 05

50 lbs.	\$2 75
100 lbs.	5 50
500 lbs.	25 00

WHOLE BISCUIT (with Meat) Ppd.

2 lbs.	\$0 30	\$0 45
25 lbs.	2 25	2 65
50 lbs.	4 00	
100 lbs.	7 50	

CANNED MEAT FOOD. 1-lb. can 15 cts.; 2 for 25 cts., postpaid 35 cts. Case (48 1-lb. cans) \$5.25.

KIBBLED BISCUIT (with Meat)

		Postpaid
2 lbs.	\$0 30	\$0 45
5 lbs.	60	75
10 lbs.	1 00	1 25
25 lbs.	2 25	2 65
50 lbs.	4 00	
100 lbs.	7 50	



For those who prefer a "baked" food rather than a "cooked" cereal, we recommend Perfection Biscuits.

MILLER'S DOG FOODS

At last the food-experts at Battle Creek, Mich., have perfected a Dog Food that satisfies the tastes and appetites of 99 out of 100 dogs and keeps them healthy and happy. Crisp, golden cereals, pure lean meat, vitamins, and minerals are combined in Miller's in correct proportions to give your dog a savory, balanced diet.

Valuable Dog Book sent free on request



BISCUIT

		Postpaid
2-lb. carton	\$0 35	\$0 50
25-lb. sack	2 25	2 65
50-lb. sack	4 00	
100-lb. sack	7 50	

KIBBLES

		Postpaid
2-lb. carton	\$0 35	\$0 50
25-lb. sack	2 40	2 80
50-lb. sack	4 25	
100-lb. sack	8 00	

RATION

		Postpaid
5-lb. carton	\$0 65	\$0 80
25-lb. sack	1 65	2 05
50-lb. sack	2 75	
100-lb. sack	5 50	

PUPPY MEAL

		Postpaid
2-lb. carton	\$0 35	\$0 50
25-lb. sack	2 40	2 80
50-lb. sack	4 25	
100-lb. sack	8 00	

"GIVE YOUR DOG A REAL TREAT"

Bresko Meatbone Crisp

A complete meal for Dogs and Puppies

Scientifically prepared to meet the most exacting needs of animal nutrition. It combines in perfect proportions the protein needed for muscle building, the carbohydrates that produce heat and energy, and, in addition, the mineral salts so essential to sturdy growth of the bones. A generous supply of vitamins rounds out a perfectly balanced ration. This food is a complete ration in itself and eliminates the necessity of feeding meat. 2-lb. carton 30 cts., postpaid 45 cts.; 25-lb. bag \$2.25, postpaid \$2.65; 100-lb. bag \$8.

Dr. Melody's Dog Food

A balanced ration ready to serve

A perfectly balanced ration for dogs, cats, and all carnivorous animals. Ideal for the growth of body and bone and for the maintenance of health. It consists of fresh meat, bone, cereals, carrots, charcoal, and cod-liver oil, thereby producing a food rich in protein, vitamins, organic iron, calcium, and phosphate. Dr. Melody's Dog Food is the result of several years' study in the care and feeding of man's oldest and noblest friend—the dog. 1-lb. can 10 cts.; 6 for 55 cts., postpaid 75 cts.; 2 1/2-lb. can 18 cts.; 2 for 35 cts., postpaid 50 cts.; 1-gal. can 55 cts., postpaid 80 cts.; case (24 1-lb. cans) \$2.10.

Pratt's Dog Food

(Cubed)

A complete, balanced food. No other food or supplement need be fed to completely nourish the dog. It contains all the known necessary vitamins, the bone- and nerve-forming minerals, and nature's own food-regulators and conditioners which make for perfect health and growth. It is made from the sweetest and purest of laboratory controlled ingredients. It is economical, easy to feed, and suited to all dogs. Cannot freeze, spoil or mold.

		Postpaid
5-lb. bag	\$0 35	\$0 50
10-lb. bag	70	95
25-lb. bag	1 65	2 05
50-lb. bag	2 90	
100-lb. bag	5 25	

BOOKS FOR POULTRYMEN

On this page it has been our aim to give a representative list of books devoted to practical poultry-keeping and related subjects. There are many other books on these subjects, and if we do not list the particular book you want, write us. The books in the following list will be sent postpaid at the prices given.

American Standard of Perfection. Published by the American Poultry Association and is the American authority on the recognized characters of all varieties of chickens, turkeys, ducks, and geese. The Standard contains "ideal" pictures made from photographs of living models, showing fowls of many different breeds. It is the one book most used by judges, fanciers, and breeders, and the only recognized authority in awarding prizes in the poultry shows of the United States and Canada, and is the "last word" on all questions that arise in regard to the characters of standard-bred fowls. Size and weight of birds of the different breeds, their shape, carriage, markings, etc., are officially described in this book. Contains nearly 500 pages, 218 illustrations, and is printed on highly finished paper. Cloth binding, \$2.50.

Poultry-Houses and Fixtures. Ninth Edition. Revised and edited by H. W. Jackson. Gives complete plans and bills of material for all kinds of houses designed to meet every practical need and for every condition of location and climate. Special attention is given to convenient, labor-saving devices for interior and exterior use. 320 pages, illustrated. Paper, \$2.

The Leghorns. By J. H. Drevenstedt. This is the most complete textbook ever written about the Leghorn. 144 pages; attractive illustrations. \$1.

Best Plans of Poultry-Houses. Many poultry-houses are unhealthful for the fowls; many are inconvenient to do the work in. Both lead to failure. Following the plans in this book is assurance that you will have a satisfactory poultry-house at the least expense. It is a money-saver and a money-maker. Completely illustrated. 50 cts.

Best Methods of Feeding. Neither profit nor satisfaction is possible where wrong methods of feeding prevail. Any except the best methods are expensive, wasteful, and do not produce the results that count. This book gives, in boiled-down, plain descriptions, the methods of feeding which have produced the best results. It is the most beautifully illustrated book ever offered American poultry-keepers. 50 cts.

Best Methods of Culling. In these days, the progressive poultryman gets rid of his drones, or non-producers, and gives their room and their feed to fowls he knows, by testing according to the rules in this book, are hard-working, heavy layers. This book gives the information in easily understandable form. Completely illustrated. 50 cts.

Egg Record and Account Book. A simple, easy method of keeping correct accounts by the day, month, and year, of all expenses and income. Also a record of all eggs laid, set, or sold; of chicks hatched and sold, and a record of orders as filled. 40 cts.

Rabbits and Ducks

American Rabbit Culture. By A. E. Facey, Jr. Tells everything you need to know about rabbits from beginning to end. New—just off the press. Paper binding, \$1.

Care and Management of Rabbits. By Chesla C. Sherlock. A complete guide for all phases of care, breeding, and management of rabbits. Illustrated. Cloth binding, \$1.25.

Outdoor Opportunities. Tells how to make money in spare time, mostly outdoors. Written by men and women of practical experience. 256 pages; 118 photographs, \$2.

Making a Living with Rabbits. 96 pages. 50 cts.

Rabbits and Dollars. 72 pages. 50 cts.

Growing Ducks and Geese for Profit. By John H. Robinson. Complete textbook of domestic water-fowl, giving the latest and best methods for housing, feeding, incubation, brooding, and marketing. 448 pages; upwards of 200 illustrations. \$2.50.

Pigeons and Squabs

A to Z of Pigeons. By E. J. W. Dietz. New edition. The last word on pigeons. 156 pages; 51 illustrations. \$1.

National Standard Squab Book. By E. C. Rice. All about breeding pigeons and growing squabs for market. 416 pages; 211 illustrations. \$1.

Pigeon Disease and Feeding Management. By E. J. W. Dietz. Most complete information available on diseases. Chapter on general care. 78 pages; illustrated. 75 cts.

Pigeon Loft Register. 40 cts.

Bees

Starting Right with Bees. Every beginner in bee-keeping should own this book. Fabrikoid, 50 cts.

ABC and XYZ of Bee Culture. The largest and most complete work on bees ever published. An encyclopedia on its subject. Latest edition. Fabrikoid cover, \$2.

Turkeys and Pets

Parrots and Other Talking Birds. By Charles N. Page. The most complete work on this subject. 35 cts.

Cat Culture. An instructive book treating on the care, breeding, and diseases of cats. 64 pages. 15 cts.

Canary Breeding and Training. By Charles N. Page. A treatise on the breeding, rearing, training, and care of canary birds. 101 pages; illustrated. 35 cts.

Turkey Production. By L. E. Cline, B.S., M.S. A complete text on breeding, feeding, handling, marketing, and disease control, prepared for the use of turkey producers and agricultural students. A new book—just published. Covers every detail with latest information. 300 pages; 93 illustrations. Cloth binding, \$3.

Dogs

Training the Dog. By Will Judy. For all breeds. Many illustrations. Includes full information on feeding, quarters, grooming, bathing, house breaking, and care of the dog in health and sickness. The best book of its kind yet published. Written scientifically and yet plainly, so that the instructions can be easily applied by the owner of one or many dogs. \$1.50.

Dog Encyclopedia. By Will Judy. The only complete reference work on dogs, giving the photograph, history, description and official standards of all breeds, and giving also full information about all of the other dog subjects, such as breeding, grooming, kenneling, exhibiting, importing, and the like. It answers every question about dogs. 163 illustrations. \$3.

Our Dogs. By C. E. Harbison. It tells how a dog should be trained, fed, and kept in condition, also describes the causes and symptoms of diseases as well as their remedies and treatment. In fact, everything that a dog-owner should know for his dog's well-being is here presented in plain, easy-to-understand, non-technical language. Illustrated. 252 pages. Fabrikoid. \$2.

Thompson's Aluminum Alumbrite Paint

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Books for better Gardens

WE have endeavored on this page to give a list of Farm and Garden Books that will be read with interest and profit by the majority of the readers of our Catalogue. There are, however, hundreds of others, just as readable and of equal value, which we do not have the space even to name. We will be glad to secure for our readers any book now in print on any particular subject. Just give us the subject and we will tell you what is available and the price. Any of the books sent postpaid.

1001 GARDEN QUESTIONS ANSWERED. By Alfred C. Hottes. A guide-book to daily operations, covering the flower-, fruit-, and vegetable-garden. A wealth of garden facts which hundreds of men have spent their lives in obtaining will be found in this book. 320 pages; 80 illustrations. Paper binding, \$1.50; cloth, \$2.

GARDEN GUIDE. Unrivalled manual on flowers, fruits, vegetables, etc. Covers every step from spading the ground to preserving the harvest. 388 pages; 275 illustrations. Paper binding, \$1; cloth, \$1.50.

LAWNS. By F. F. Rockwell. You will find use for this information year after year, for it shows both how to start a lawn right and how to keep it smooth and velvety thereafter. Full of suggestions on laying out the lawn, grading, fertilizing, planting, care after planting, weed and pest control, and remaking and repairing old lawns. 87 pages; 39 illustrations. \$1.

THE LAWN. By L. S. Dickinson. Gives the latest and best knowledge on the making and upkeep of lawns. Simple, practical directions that everyone may follow. Valuable for both professional and amateur. 128 pages; illustrated. \$1.25.

SHRUBS. By F. F. Rockwell. Brief but complete and usable information on the best ways to improve the beauty and value of your home with shrubs. Tells what to select for different combinations and effects, and how to plant, water, mulch, prune, and care for shrubs. 76 pages; 49 illustrations. \$1.

THE BOOK OF SHRUBS. By Alfred C. Hottes. The most complete and informative book on the care and cultivation of shrubs for the amateur. Gives all details of care, culture, soils, fertilizers, diseases, propagation, etc. 446 pages; 187 illustrations. Cloth, \$3.

THE BOOK OF BULBS. By F. F. Rockwell. Here is the "last word" on bulbs and how to grow them in the garden. Pictures and text show and tell just how to make the most from bulbs in your garden, both outdoors and inside the home. Includes peonies, dahlias, irises, gladiolus, etc., as well as tulips, narcissus, hyacinths, and other true bulbs. Interesting and practical. 264 pages; 187 illustrations. \$2.

ALL ABOUT FLOWERING BULBS. By T. A. Weston. Complete information on care and culture of bulbs of all seasons and some information on bulbs that may be brought in the house. 186 pages; 8 full-page color-plates; 65 full-page half-tones. Cloth, \$2.

MODERN DAHLIA CULTURE. By W. H. Waite. Written to meet the needs of the novice and to interest and inform the expert. Biggest book value there is for dahlia-lovers. 134 pages; 6 full-page color-plates and 24 half-tones. Cloth binding, \$1.50.

DAHLIAS. By F. F. Rockwell. All dahlia-lovers will profit from this interesting and helpful book. It describes the various types and tells their uses, how to plant and grow them, the fertilizers to use, how to control pests, how to harvest and store, grow for exhibition, and how to propagate and hybridize. 80 pages; 65 illustrations. \$1.

GLADIOLUS. By F. F. Rockwell. Tells how to plant, fertilize, and cultivate; how to grow from seed or bulbets; how to harvest and cure; how to handle for cut-flowers; and every other detail needed for success with this popular flower. 79 pages; 45 illustrations. \$1.

ROSES. By F. F. Rockwell. This book has a new classification of roses which makes it easy for every home-garden owner to pick the kinds that will succeed. It includes brief and helpful directions on rose-care and culture, planting, propagation, and pest-control. 86 pages; illustrated. \$1.

HOW TO GROW ROSES. By Pyle, McFarland, and Stevens. Makes every step in the culture and care of roses so clear that any grower can understand it and succeed with them. A completely re-written edition of America's most popular rose book. 211 pages; 138 illustrations, including 45 varieties illustrated in color. \$2.

CLIMBING ROSES. By G. A. Stevens. Tells what climbing roses are, how they may easily be grown, used, and made to succeed. With a description of all the climbing roses known. A companion volume to "How to Grow Roses." 32 color-plates and 32 half-tone illustrations. Cloth, \$2.

THE BOOK OF ANNUALS. By Alfred C. Hottes. A reliable guide through the season of annual bloom. 182 pages; 155 illustrations. Cloth binding, \$1.50.

PERENNIAL GARDENS. By H. S. Orloff. Following the simple directions in this book insures a perennial garden crowded with bloom, in which the colors make a perfectly blended picture. First come plans, showing how to locate and lay out the garden; then clear directions for preparing the soil, fertilizing, planting, cultivating, transplanting and propagation. 90 pages; 18 illustrations. \$1.25.

THE BOOK OF PERENNIALS. By Alfred C. Hottes. Devoted to the general principles of growing, using, selecting, and propagating perennials, followed by a number of comprehensive lists of perennials suited for different locations and purposes. 280 pages; over 100 illustrations. Cloth, \$2.

PEONIES. By F. F. Rockwell. Tells all about peonies, where and how to grow them, how to select varieties, their planting, care, cultivation, propagation, and protection. It illustrates and describes fully the various types and their uses. Written by an amateur for amateurs. Illustrated with photographs and drawings. \$1.

SUCCESS WITH HOUSE PLANTS. By Kift and Hedenberg. Of unusual appeal to the amateur wishing understandable but complete and definite information on all plants that can be raised with success in the house. 78 pages; 29 illustrations. 75 cts.

MILADY'S HOUSE PLANTS. By F. E. Palmer. An instructive book for women on successful culture of plants in their homes. 176 pages; 152 illustrations. \$1.

ROCK-GARDEN PRIMER. By Archie Thornton. The feature of this book is the wealth of information on construction of different types of rockeries. 152 pages; 4 color-plates and 70 other illustrations. Leatherette, \$2.

EVERGREENS FOR THE SMALL PLACE. By F. F. Rockwell. All the information you need to make the best use of evergreens is in this handy book, written by one who is himself a home-owner and a garden-maker. It tells the uses, characteristics, and types of dwarf evergreens, and details of their planting, transplanting, and general care. 84 pp.; 67 illustrations. \$1.

ROCK-GARDENS. By F. F. Rockwell. Shows just how you can build a rock-garden yourself, on a small or large scale, and at little expense. Describes the types of rock-gardens; tells what soils, climates, and locations are best; how to construct; and what to plant for the effect you want. Let this practical book demonstrate the fascination of this form of gardening and guide you to success. 86 pages; 31 illustrations. \$1.

LANDSCAPING THE SMALL HOME. By Edward W. Olver. Written especially for the owner of a small home and giving him full information as to beautifying his own place—both garden and land. 160 pages; 90 illustrations. Cloth, \$2.

ADVENTURES IN A SUBURBAN GARDEN. By Louise Beebe Wilder. Contains a gold mine of practical information about the uses and behavior of over 500 new and old varieties of plants by one of America's best gardeners. Bulbs, roses, annuals, perennials, alpine, wildlings, color schemes, and care of the garden are all included. 265 pages; 19 illustrations. \$3.50.

THE OUTDOOR LIVING-ROOM. By L. W. Ramsey and C. H. Lawrence. This book will help you make a beautiful outdoor living-room, around either a new home or one already planted. Helpful illustrations and clear text take you through every operation from start to finish. 139 pages; 98 illustrations. \$2.50.

THE GARDEN NOTEBOOK. By Alfred Putz. Illustrated handbook of home-gardening for each week of the year. Includes culture of house-plants and every operation of the small home-garden—soils, insects, fertilizers, bulbs, seedlings, cuttings, pruning, lawns, borders, and rock-gardens. 52 working drawings show just what to do, and how. 212 pages. \$1.50.

PRACTICAL PLANT PROPAGATION. By Alfred C. Hottes. An exposition of the art and science of increasing plants, as practiced by the nurseryman, florist, and gardener. 224 pages; illustrated. Cloth binding, \$2.

AROUND THE YEAR IN THE GARDEN. By F. F. Rockwell. This splendid book, written by one of America's best-known practical gardeners, is unique in its usefulness. It starts with preparations for the season's work in January and outlines a balanced program for the garden through every week in the year. Bound to bring you success. 350 pages; 88 illustrations. \$2.50.

GARDENER'S HANDBOOK. By L. H. Bailey. This book comprises brief notes for the amateur on the raising of vegetables and fruits and the growing of many kinds of annuals and perennials in the home-grounds, on porches, and in windows. Arranged alphabetically. \$3.

PRACTICAL VEGETABLE CULTURE. By Albert E. Wilkinson. Covers all phases of vegetable culture, from sowing the seed to reaping the harvest, and is useful for both amateur and professional. 308 pages; 135 illus. \$2.

MANUAL OF GARDENING. By L. H. Bailey. A guide for planting and landscaping the home grounds. Tells how to make the most of natural features; how to drain, cultivate, and fertilize the soil; how to sow, propagate, transplant, prune, and graft the different fruits, vegetables, and flowers. Lists of varieties for different purposes. 539 pages; 350 illustrations. \$3.

GARDEN FLOWERS IN COLOR. By G. A. Stevens. This is the only book which shows all the commonly grown garden flowers in natural colors. It is invaluable for identifying plants you have admired, for planning your garden color scheme, for selecting the right plants for bed and border combinations, and for consultation at seed-catalogue time. It has 400 flower pictures in full color. There is a picture on every page, and the brief cultural directions are directly opposite the illustrated flower. 320 pages; 400 photographs in color. \$3.75.

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As each year goes by we are made to realize more fully the many advantages the **Gravely** Garden Tractor has to offer you. Its narrow tread, single-wheel traction, front-tool hitch, etc., are features worthy of consideration.

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"Shortly after we purchased the **Gravely** Tractor, the writer stood at the end of one of our gladiolus rows and watched with interest its performance, and I told our operator that it was the finest and prettiest piece of cultivation I had ever seen with any tools or any outfit. The ease with which the Tractor is handled, the ability to make short turns, together with the placement of the tools in front where they are constantly in view, make closer cultivation possible, and thus more effective. We can heartily and cheerfully recommend the **Gravely**."—*An Ohio Gravely owner.*

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The **Bolens** Tractor is light, compact, and easily operated. Adapted to garden plowing, harrowing, cultivating and lawn mowing. It has many patented and exclusive features, each vital and indispensable for the work required. A double clutch drive provides power turn and leaves the drive-wheels free for turning or backing when power is off. Instant hitches make all attachments quickly interchangeable without the use of a wrench.

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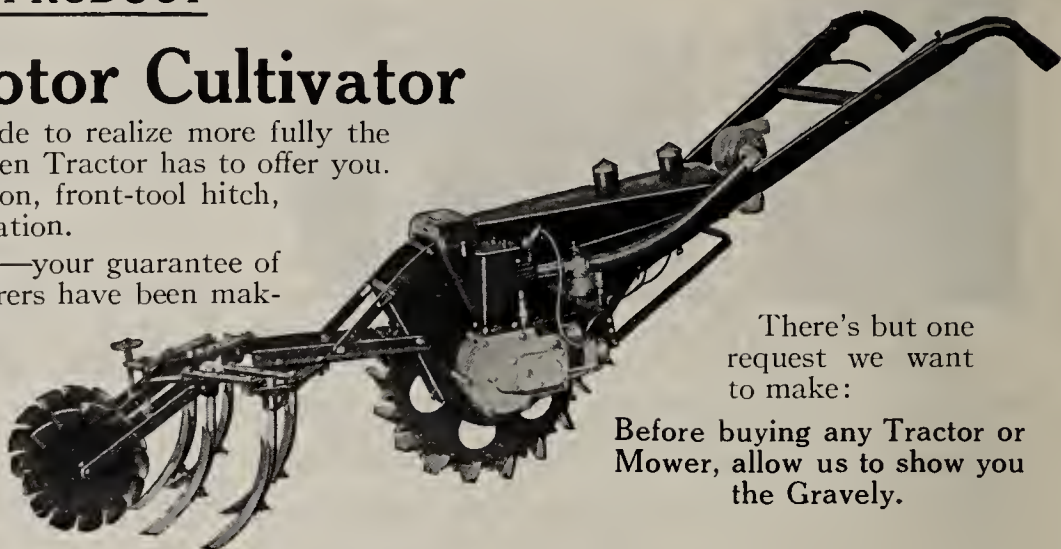
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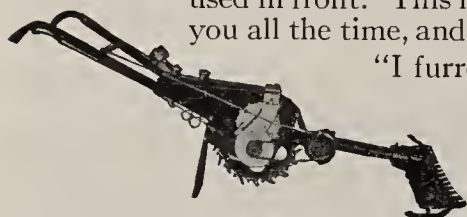
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Before buying any Tractor or Mower, allow us to show you the **Gravely**.



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